SCOUTING NUMBER

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Edited by Dean James E. Russell

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TEACHERS COLLEGE RECORD

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SCOUTING EDUCATION

By JAMES E. RUSSELL

Dean of Teachers College

In these times of unparalleled storm and stress, when the traditions of centuries are crumbling and the ideals of civilization are being weighed in the balance of war, the patriots of every nation are giving anxious thought to the social order that shall arise from the present chaos. Preparedness is the word that springs to every lip. It is used alike by those who would take the easiest way to let well enough alone, and by those who wish to reconstruct the world. In its lowest terms, it means preparation for military defense against foreign aggression; in its highest reaches, it aspires to the regeneration of human nature, so that the brute in man shall forever be held in leash. However men may differ as to the means of bringing on the millennium, the fairest flower in the blood-soaked fields of the world to-day is the universal desire for peace on earth and good will to men.

There can be no peace without good will among men, and no will is good that does not beget justice, protect ownership, and secure life, liberty, and the pursuit of happiness. These are the rights of man, incorporated by our forefathers into the fabric of our government and bequeathed to us as a precious legacy to have and to hold in trust for all those who would be citizens of a free and independent state. The right to worship God in one's own way; the right to trade, to conduct commerce, to accumulate property, to take up land, and, by occupation,

to own it without restriction; the right to barter with one's neighbors in matters spiritual, temporal and political; the right to be one's own master—these were the ideals of the founders of our nation. And when they set up a government of their own, they took particular pains to see that their rights were secure. Read the Constitution of the United States, and note the rights and duties enumerated. Duties are enjoined only upon office-holders for the protection of the rights of citizens; and, as if the directors of the joint-stock corporation could not be trusted to return adequate dividends, a string of amendments has been added, still further defining the rights of individuals. No word anywhere in that famous document directly defines the duties of citizens—an omission that would have wrecked the Republic in its infancy, except for the genius of Chief Justice Marshall and the assiduous labors of a few patriotic statesmen. But for more than a century we have slowly been learning the lesson that rights have their correlative duties: that the right to one's own property imposes the duty of protecting the property of others; that the right to freedom brings with it the duty of obedience to the law; that the right to pursue happiness enjoins the duty of guarding others from misery; and, in a word, that the rights of citizenship, secured by government, make it the duty of every citizen to give patriotic service whenever needed and at whatever cost.

Individualism has so long been dominant in our social and political life, it is no wonder that it has also directed the course of our education. The theory that all men are created equal is easily interpreted to mean that any man may become anything. Granted that the individual has a right to direct his own development, does it follow that he may do as he pleases? And if the state provides schools and teachers for the education of the young, what has the state a right to expect from its training, and what is the duty of its pupils towards the public? Can individuals naturally selfish, who have the American way of wanting to do as they please, be trained in schools to be efficient, patriotic citizens? If so, what kind of training should an American school give to the prospective American citizen? Such questions as these are pressing for answer now as never before in our history.

A survey of American education does not disclose much evidence of a controlling desire to promote patriotic service. Indeed, if one were to confine one's attention to the work of the schools, particularly of the public schools, where, if anywhere, one might expect to find the most direct efforts towards teaching the duties of citizenship, surprise and disappointment would follow. Teachers there are, in great numbers, who see the future man or woman in their pupils, and who labor unceasingly to fortify them against their day of need; but the test that passes pupils from grade to grade does not take into account growth in character or moral strength. The work of teachers is judged primarily by what their pupils know. The virtues and vices of our future citizens are a sealed book which our educational authorities do not open to inspection. The state seems to have overlooked the fact that intellectual power is as great an asset to the crook as to the honest man. Public safety, therefore, calls for more than the schools are officially encouraged to give.

Education, however, is not wholly a matter of schools and school training. Indeed, if it were, we should come badly off. Consider for a moment the time problem. Our children are in school at the most five hours a day, five days in the week, for forty weeks in the year—a total of 1,000 hours. The average child of school age is awake fifteen hours a day for 365 days in the year—a total of 5,475 hours. Any way you reckon it, the normal child is receptive, getting impressions, using ideas, reaching conclusions, fixing habits, organizing his modes of behavior which, Professor James said, is education, four hours outside of school for every hour spent in school. Let the school be administered by directors of the widest vision and the highest ideals; let it be equipped with the best appliances, and staffed by teachers with the ripest scholarship, the finest training, and the clearest pedagogical insight, and you still have to reckon with forces inherent in the nature of the child and incident to his life in a society that are overwhelmingly and persistently directing his personal development.

Next consider what the child is required to learn in school: first, to read, write, and spell correctly, and speak grammatically a language almost as foreign to the child and as artificial at the

time as any alien tongue; second, to learn numbers and their manipulation in a way that does not appeal to him, because beyond his needs, and to an extent that often surpasses belief; third, to learn something of history and literature, which may or may not be amenable to reason; fourth, to become familiar with certain elements of geography and natural science, which may or may not be elementary nor natural nor science; fifth, to dabble in music, art, handwork, cooking, sewing, and a variety of subjects more or less dependent upon the whims of school boards and the preferences of teachers. If to this showing of what is ordinarily regarded as essentials, you add the "dead wood" that has floated into our schools on the stream of tradition and remained there, because of the conservatism of teachers and the wisdom of college faculties, you have a very formidable collection of materials which custom decrees shall be packed away somewhere and somehow in a child's cranium.

In the third place, I want you to consider how much of a teacher's time the average child gets in a school-day. In our rural ungraded schools, the teacher may have from fifteen to forty different classes in a five- or six-hour day. When such a school has six or eight groups—not an uncommon occurrence—the hours of schooling become minutes, and not many of them. Our Commissioner of Education reports: "If every minute of the five-hour school-day could be used for recitations, the recitations would have an average of nine and one-half minutes each." Then turn to our city schools, with their classes of forty to sixty pupils ranged in rows, disciplined to silence, worked in teams. How many minutes a day does the average child get for personal contact with the teacher? How much time is given him for reflection on what he learns and for its assimilation into his spiritual life? What per cent of efficiency should be expected from his work?

And, finally, take account of the administration of our schools. Note that our rural teachers are but little older than their eldest pupils, with little more training for their work than the schools give in which they teach; that the teachers in our city schools are mostly young women who can be forced to work for less than the wage of street cleaners or of the cooks in our kitchen; that few of our principals and superintendents have had any pro-

fessional training whatever, although we live in a generation that requires trained physicians, trained lawyers, trained engineers, even trained veterinarians to look after our hogs and horses and cattle and lapdogs; and that the state entrusts the management of the largest, most far-reaching and expensive department of civil government to boards of directors with little knowledge of child nature or school work or social needs. What wonder that school funds are squandered in this country by the millions of dollars annually, that teaching is regarded as a trade rather than a profession, and that there is widespread dissatisfaction with the results of schooling! It is providential, however, that guardian angels keep watch over children and fools, otherwise the pupils in our schools and we who send them there would long ago have come to ruin. The truth is that, however badly our children do, it is safe to say that their teachers do worse; and, bad as teaching is, the administration of our schools is worse still.

Under prevailing conditions, therefore, the most that can reasonably be expected is that our children should acquire in school a very moderate amount of useful knowledge, a few desirable habits in the use of language and numbers, and some ability in facing squarely and solving accurately the problems that they meet in life. We have no right to expect children on leaving our public schools at fourteen or sixteen years of age—and about nine-tenths of them get no schooling after sixteen,—to be either clear thinkers or independent workers. They are unformed, not to say uninformed, but energetic and ambitious humans. At best, the school has given them a taste of the good things of life, has opened the door to opportunity, and roused in them a desire to take advantage of what life offers. It has done little, and, as things are at present, it can do little, to make them efficient workers in any vocation, or to equip them with those habits of mind and body essential to good citizenship. In other words, the school of to-day lacks the time, the means, and the professional ability to develop in its pupils the moral character which we expect in the good citizen. It does afford, however, the foundations on which that kind of character rests, and it does uphold the ideals towards which its pupils should strive.

Fortunately, education is more than schooling. The development of character for good or ill goes on, whether the child is in school or out of school. His impulse to imitate what he sees and adopt what he likes in the real world about him is more powerful, because more natural, than the tendency to identify himself with the artificial life of the schoolroom. Hence the commanding importance of the playground and the educational significance of games that enlist a boy's best self in active cooperation with his fellows. If nothing better offers, he will take to the streets and find his place in a gang of kindred spirits, tearing down or building up his neighbor's property and his own character at one and the same time. The real world of the public school boy, "the world in which things of vital importance happen," as Kipling puts it, is the world outside the class room—the world of the home or the street, of the church or the saloon, of the library or the pool-room, of the club or the gang, of the world of brooks and trees and God's out-of-doors, or the world of alleys and backyards and Hell's Kitchen.

Teachers who are concerned with the education, as distinguished from mere instruction, of their pupils are earnestly seeking to merge their work with the best influences in the home, in the church, and in society. They welcome all supplementary means of arousing a boy's ambition, of quickening his emotions, of attracting his interests, and of fixing his habits. They like to see him give himself whole-heartedly to something worth doing, whether it be work or play, and to stick to the job until it is done. They know that self-reliance, self-direction, and self-control come in no other way, and that preaching about the finest ideals of life leaves the boy untouched, unless he himself builds them into his own character.

It is for these reasons, therefore, that I declare the Boy Scout movement to be the most significant educational contribution of our time. The naturalist may praise it for its success in putting the boy close to nature's heart; the moralist, for its splendid code of ethics; the hygienist, for its methods of physical training; the parent, for its ability to keep his boy out of mischief; but from the standpoint of the educator, it has marvelous 'potency for converting the restless, irresponsible, self-centered boy into the straightforward, dependable, helpful

young citizen. To the boy who will give himself to it, there is plenty of work that looks like play, standards of excellence which he can appreciate, rules of conduct which he must obey, positions of responsibility which he may occupy as soon as he qualifies himself—in a word, a program that appeals to a boy's instincts, and a method adapted to a boy's nature.

This is not the place to discuss the Boy Scout program. Most of you know it much better than I do. But I would consider myself a prince among schoolmen, if I could devise a school program in which the curriculum should appeal so directly to a boy's interests and the courses of study apply so serviceably to adult needs. Every task in scouting is a man's job cut down to a boy's size. The appeal to a boy's interests is not primarily because he is a boy, but particularly because he wants to be a man. Scan the list: agriculture and angling, blacksmithing and business, carpentering and civics, dairying and mining, music and plumbing, poultry and printing, first aid and politeness, life-saving and nature study, seamanship and campcraft, patriotism and cooking, and scores of other accomplishments and activities requiring accurate knowledge that is susceptible of direct and immediate application to everyday life. Every one of these tasks holds the boy, not only because he is a boy and likes to do them, but also because they are tasks which grown men find useful. It is the man in the boy that is emphasized, and the type of manhood idealized is that which strives "to stand for the right against the wrong, for truth against falsehood, to help the weak and oppressed, and to love and seek the best things of life." Hence the scout oath taken by every boy on becoming a tenderfoot: "On my honor, I will do my best (1) to do my duty to God and my country, and to obey the scout law; (2) to help other people at all times; (3) to keep myself physically strong, mentally awake, and morally straight."

The scout curriculum may appear superficial to the pedagogue, and doubtless much that is taught is neither systematic nor comprehensive. But scoutcraft is not intended to be a substitute for schooling. It is a device for supplementing the formal instruction of the schools, by leading the boy into new fields and giving him a chance to make practical use of all his

powers, intellectual, moral, and physical. The best thing about it is its extraordinary diversity, reaching out to boys of all degrees of mental ability, in all kinds of social environment, and creating for them a real need to do their level best.

But the most significant contribution of the Boy Scout movement to education is its pedagogical methods. As a teacher, I take my hat off to Sir Robert Baden-Powell, the genius who in a bare decade has done more to vitalize the methods of character training than all the schoolmen in this country have done since the Pilgrims landed on the New England coast. We have preached the virtues of a government of the people, by the people, and for the people, and have sought for the best means of perpetuating a nation conceived in liberty and dedicated to the proposition that all men are created equal. There have been times when we doubted whether a nation so conceived and so dedicated can long endure. We know full well that the experiment must eventually fail, if our citizens grow up accustomed to the evils of selfishness and greed and indifferent to the ravages of privilege and plunder. And failure is just as certain, even if a little longer deferred, if our citizens are not trained to participate actively and constructively in upholding the virtues on which both personal character and good citizenship are based.

In the development of character two processes are constantly at work, one tending to restrict the initiative of the subject, and the other to strengthen his personal will. The human infant is a rank individualist. His first cry is a protest against the treatment he receives. He wants what he wants when he wants it. But gradually, despite his objections, he becomes habituated to his environment. He must take the food supplied him, whether he likes it or not, and eventually he calls it good. He acquires a language that is not of his making, and finally speaks as those about him speak. Even the inflections and intonation of voice peculiar to his locality come to mark him as provincial. He may prefer to eat with his fingers and he may abhor the clothes he wears, but in time his table manners and habits of dress conform to prevailing fashions. Tasks at first laborious grow easy with practice, and practices, at first distasteful, become agreeable and necessary to his happi-

ness. This is the process of education through habit, by which the individual is accustomed to the restrictions and requirements of his social group. It is the way he acquires the likeness of his kind; it gives him his morals and his manners, and it sets standards of conduct which he dare not disobey. Witness the tyranny of the fashions and the punishment visited upon the obstreperous member of society who ventures to disregard the injunctions of the prevailing code of honor or the mandates of the moral order. Habits are the basis of all efficiency in accomplishment, whether in personal service or vocational employment. Otherwise, we should spend our days in learning anew the art of lacing our shoes or holding a pen or reciting the multiplication table. Moreover, a workman likes to do what he can do well, and doing something well brings its own reward in pride of accomplishment, a living wage, and contentment with results. The satisfaction that comes from doing an honest day's work is the surest guarantee of conservative citizenship.

The other process in education exerts a force diametrically opposed to the trend of custom and habit. It springs from the innate desire of the individual to be himself rather than to be like someone else; it is the outgrowth of his impulse to protest when pressure is brought to bear upon him. One way consists in yielding to guidance; the other, in guiding one's self. One force makes for identity of kind, conservatism and efficiency; the other, for individuality, initiative and progress.

These two forces, however, are but the two sides of the same shield, opposed yet essentially one in the course of education. A man rises on his dead self only in the sense that he rises by steps fixed in habit. The more steps in his ladder securely fixed, the higher he can rise. Once a child is in control of the complicated process of walking, he may use that habit in learning to run, to swim, to skate, and ride a wheel; writing, made habitual, becomes so easy that the writer's whole attention may be centered on what he writes. Habit gives such command of language that speech unconsciously follows thought; habit makes us familiar with our alphabet and tables, written signs and symbols and rules and abstract terms; habit begets our attitudes and appreciations, and determines our behavior in

every crisis in life. Nevertheless, habit is only the hand-maid of invention. Originality consists in giving to fixed habits a new organization and a progressive existence on a higher scale. When Bell invented the telephone, he used no material, law or habit of operation not known before; but he did devise a new combination of them, which has forced us all into a new round of customs and habits in communication. Every normal human being, and every social group, from the family to the nation, is on the way somewhere; the important thing is that they should have leaders who know the way and who, like trustworthy scouts, will risk their lives that their comrades may live.

While I have been speaking in parable, you surely realize that I have had the pedagogical methods of scouting in mind. When the tenderfoot takes his oath, he promises to do something. To be sure, it is stated in abstract terms and is a bit grandiloquent, but it serves the purpose of rounding up his moral energy. He is asked, as it were, to gird up his loins and to get set on his mark for the race to come. Then he is obliged to do something; in fact, he has already qualified in certain small "stunts," and every step in advance is marked by new habits fixed through persistent effort. Step by step, habit by habit, he passes from grade to grade. The content of his curriculum I have already discussed. What concerns me now is the method; and that, I repeat, is superb.

In contrast to the loose control of the home, sometimes severe, often lax and always personal, and to the discipline of the school, which is generally mechanical and autocratic, the method of scouting asks the boy to do something that he thinks is worth while and that he wants to do. Many of the tasks are self-imposed, because the boy chooses what he shall undertake; many of them require practice which he must do alone. His best efforts are enlisted in the acquisition of the right habit. And for every success some reward is given, a testimonial that converts a universal weakness of human nature into an element of strength. A great contribution to educational procedure—one that reflects severely upon the games and sports of our schools and colleges—is that in scout competition there are no losers. One scout's gain is not another's loss; when one patrol wins,

some other one does not go down in defeat. Yet who will say that scouting exhibitions lack "pep" or vim or dogged determination? Scouting does not depend for its success upon side lines and cheer leaders; it finds its reward in the virtue of doing well something worth doing.

Then, too, human nature is appealed to in the administrative system of scouting. The device of patrol and troop and community units and national organization puts the boy in touch with other scouts everywhere, gives him responsibility for the conduct of his fellows, and inspires him with pride in the cause. I venture to say that most scouts are in closer touch with their scout masters than they are with their school teachers, and know Mr. West better than they know their superintendent of schools or the state commissioner of education. The personal touch inherent in the system induces a sense of corporate responsibility, makes a virtue of obedience to law, and through imitation, gives concrete expression to a code of honor unparalleled in modern chivalry. Its most striking feature is that it stresses duties instead of magnifying rights. The twelve commandments of scouting are stated in positive terms, rather than in the form of the Mosaic decalogue: "Thou shalt not." The scout *is* trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean and reverent. Each of these laws, extraordinarily abstract in the simplicity of its formulation, is illustrated in the daily round of every boy's life. The scout's duty to do a good turn daily—a device worthy to rank with the sewing machine, the steam engine, and the telegraph, and of infinitely greater worth than any such mechanical contrivance for the development of character and the making of citizens—puts the boy not only in a position to understand the moral laws under which he lives, but to incorporate them into the fabric of his life.

The scout program, therefore, is essentially moral training for the sake of efficient democratic citizenship. It gives definite embodiment to the ideals of the school, and supplements the efforts of home and church. It works adroitly, by a thousand specific habits, to anchor a boy to modes of right living as securely as if held by chains of steel; but best of all, it exhibits positive genius in devising situations that test a boy's self-

reliance and give full scope to his talent for originality and leadership. These two aspects of the scout program are so evenly balanced and so nicely adjusted as to make them well-nigh pedagogically perfect. The entire organization is a machine capable of working wonders, not only in the moral regeneration of the American boy, but also in fitting him to assume the duties of an American citizen.

The more delicate and intricate the machine, the greater the need of skilled operators. On you, therefore, who assume leadership in the Boy Scout movement rests a heavy responsibility. If you are true to the motto of scouting, you, too, must "be prepared." You must know that your business is not primarily to make cooks or campers or hikers or students of nature, nor even efficient workers in any vocation. All these are means to ends, not ends in themselves. The real purpose of your office is to help boys to translate the Golden Rule into concrete terms and to keep themselves physically strong, mentally awake, and morally straight. I have tried to show you that the method you must follow is the simple one of fixing habits and creating situations that invite leadership. The danger is that the very simplicity of procedure may betray you into mistaking means for ends. It is the mistake that so many fraternal organizations for adults make; it is the error into which so many teachers fall. Be prepared to measure every activity, every task by its results in character building. Weigh the relative value of the habits that you can inculcate. Fix the best ones fast by insistent practice, keep them alive by frequent repetition, and make each one a step to a higher level. Then strive to locate responsibility; put on a boy's shoulders all the load that he can carry; increase it as he gathers strength; let him feel the joy of mastery; and reward him according to his service.

If your vision is faulty, the ditch that yawns for blind leaders of the blind is not far ahead of you. On the other hand, if you see things straight and see them whole, you have every possible inducement to demonstrate your ability to lead. Opportunities to show initiative, self-direction, and self-control are not confined to the boys of your troops. Splendid as your program is, it is not beyond the reach of improvement. Genius

gave it life, and only genius can keep it alive. If ever this program, which I have praised so highly, becomes formal; if your work as scout masters and scout leaders drops into routine; if your system of administration gets so enamored of its success that it becomes autocratic, you will all be on the highroad to oblivion. The best of athletes may grow stale, and the strongest team may fail from over-confidence. It is relatively easy to build up a business, but it is extraordinarily difficult to keep it at its maximum efficiency. The maximum efficiency of this great movement depends finally upon the worth of your contributions to it. The call still is for men of vision, men with initiative, men of nerve and daring, men who, by every test, are fit to be called "good scouts."

SOME PEDAGOGICAL INTERPRETATIONS AND APPLICATIONS OF THE METHODS OF BOY SCOUT EDUCATION

By DAVID SNEDDEN

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I. Whence and What is Boy Scout Education?

1. The origins of the Boy Scout Movement can best be described in the words of General Baden-Powell, its originator, as found in the Fifth Annual Report of the English Boy Scouts (dated January, 1914):

"It has been suggested to me that a few notes to show how the Boy Scout Movement originated might be of interest.

"The idea of training boys in Scouting dates from 1884, when I applied it to recruits in my regiment, and, in revised form, from 1897, to young soldiers in the 5th Dragoon Guards. I had then found the good of developing the man's 'character' before putting upon him the routine training of drill at that time considered necessary for a soldier.

"The system was based on *education* as opposed to *instruction*, and was an evolution of the ideas of Epictetus, the code of the Knights, the Zulus and Red Indians, Dr. Jahn, Sir William Smith, my father, Dr. Arnold, Thompson Seton, Beard, W. T. Stead, and others.

"The possibility of putting responsibility on to boys and treating them seriously was brought to the proof in Mafeking with the corps of boys raised by Lord Edward Cecil there in 1899, and led me to go into it further.

"When I came home, in 1902, I found my book, 'Aids to Scouting,' being used in schools (and by Boy Organizations, etc.) for teaching boys. As this had been written for soldiers it was unsuitable for boys, and in 1908 I rewrote it (after an experimental boys' camp held in 1907). It was not then intended to have a separate organization of Boy Scouts, but that the Boys' Brigade, the Junior Y. M. C. A., the C. L. B., and the other recognized boys' organizations would utilize the idea.

"However, such a large number of men and boys outside these organizations took it up that we were obliged to form a directorate to control it.

"This at first consisted of Major McLaren and myself, with Miss Macdonald, as the entire Headquarters Staff, in a room given us by Mr. Arthur Pearson, who generously helped us to start. Lord Strathcona also gave us a donation of five hundred pounds to put us on our feet.

"The Movement grew up of itself, and assumed such proportions that in 1910 I gave up the Army and took charge of it.

"The idea of the dress of the Scouts was taken from a sketch of my own dress in Kashmir in 1897—in every detail.

"The fleur-de-lis badge was that which I used for Scouts in the 5th Dragoon Guards; it was taken from the sign of the North Point of the compass, as shown on maps as a guide to their orientation.

"The methods, aims and organization of the Movement underwent close examination by the Privy Council in 1910, and a Royal Charter of Incorporation was granted to it.

"His Majesty the King became its Patron, and H. R. H. the Prince of Wales became Chief Scout for Wales.

"And the leading men in religion, education, and affairs came on our Advisory Council.

"We work in accord with other associations for boys such as the Boys' Brigade, Church Lads' Brigade, Young Men's Christian Association Junior Branch, and others. All of us are working to the same end.

"In the Scout Movement we also aim to make our training complementary, outside the school walls, to the scholastic training within the school. We work, therefore, in touch with the Education Authorities.

"The past few months have seen great changes in ideas on education.

"One small sign which may have escaped general recognition is to be found in the recent appeal by the Education Department to Employers of Labor. These gentlemen are invited to take a closer interest in education, and to serve as much as possible on Education Committees, since they can best advise what line education should take to turn out the most useful employes.

"In other words, the user of the article is now to be the best judge of the direction in which its manufacture should be carried out.

"That is our guiding principle in the Scout training. We try to inculcate in the boys those qualities which will be required of them as useful citizens; we do not limit ourselves in the mere academic steps of knowledge. Without specializing we give them the all-round foundation of character which will be of equal value to them, whatever line of life they may adopt.

"Those are briefly the aims and methods of the Boy Scout Movement."

2. Aims and Methods of Boy Scout Education as stated by General Baden-Powell (Fifth Annual Report of the English Boy Scouts, 1914):[1]

"*Explanatory:*

"People still ask, 'What is this Boy Scout Movement?' Well, briefly, it is a way of 'playing at Backwoodsmen and Pioneers.' By its attractiveness boys are led to carry out games and practices which are of special educational value

[1] This represents, of course, English practice. American practice differs in some details.

to them. The aim is to inculcate *character*, which, though essential to success in life, is not taught within the school, and being a matter largely of environment is too generally left to chance, often with deplorable results. The Scout Movement endeavors to supply the required environment and ambitions through these games which lead a boy to become a better man and a good citizen.

"It applies equally to all classes of boys, whether in town or country."

"*The Need.*

"'The success of a Nation depends not so much upon its armaments as upon the character of its citizens.'

"We are numerically a small nation. From a patriotic point of view, then, it behooves us, if we are to hold our own in the future with those around us, that we should not waste a single man, but that all should be made efficient. Our worst enemies are not foreigners outside but inefficients inside our country. Then, if we regard the question from a Christian point of view, can we stand by with a clear conscience and see so much poverty and squalor and waste of human life going on round us, when with a little extra work on our part it might easily be prevented in the next generation?

"'Prevention is better than cure.' In the Scout Movement we are trying to *prevent* the present human wastage in the next generation, and to make every single boy into an asset for the nation."

"*Our Method.*

"The following is what we teach, and how we get the boys to acquire character. In the first place, we make the Scout promise on his honor *to do his best* to carry out the Scout Law, which is:

1. A Scout's honor is to be trusted.
2. A Scout is loyal.
3. A Scout's duty is to be useful and to help others.
4. A Scout is a friend to all and a brother to every other Scout, no matter in what social class the other belongs.
5. A Scout is courteous.
6. A Scout is a friend to animals.
7. A Scout obeys orders.
8. A Scout smiles and whistles under all difficulties.
9. A Scout is thrifty.
10. A Scout is clean in thought, word and deed.

"Then we endeavor to instil the four following attributes:

Attributes	*Adjuncts*	*Means by which supplied*
1. Character	i.e., pluck, resourcefulness, responsibility, observation and deduction, sense of duty	Through practice of seamanship, woodcraft, camping, tracking, pioneering and Scoutcraft
2. Equipment for making a career	Hobbies and handicraft	Through practice of hobbies, farms, employment and emigration agencies

3. Service for others	Life-saving, first aid	How to deal with all accidents, ambulance, fire brigade, rocket apparatus, etc.
4. Physical health	Muscular development, personal hygiene, sanitation, food	Each boy made responsible for his own health and muscular development, outdoor games and exercises

"In the matter of religion we are interdenominational; for the rest we take boys of every class and trust them all the same; we favor no political party, and we have no irons in the fire, no ulterior motives than to make good citizens."

(Additional quotations from Sixth Annual Report, English Boy Scouts, January, 1915):

"*The Method of Training.*—The secret of success in training has of late years been found to lie in going directly to the point required instead of working thither by devious ways. By practical rather than by theoretical steps.

"So it is with our training of boys in citizenship. We do not work round by devious ways to show them the theoretical value of good citizenship, but we lead them straight there by treating them as citizens, by putting responsibility upon them, by expecting great things of them, by trusting them not as boys but as if they were men. The response is at once apparent, and the boys go out of their way to act up to what is expected of them.

"The training generally is put in an attractive form such as appeals to the boys and interests them; by holding up to them the attributes of the manliest citizens of our race—that is, our frontiersmen, explorers and others who live face to face with Nature and have to do things for themselves—we give them an example which at once appeals to them and gives a line of practical instruction of the desired character."

3 Military training is excluded—why? These are General Baden-Powell's reasons (from Fifth Annual Report, as above):

"*Reasons Against Military Training:*

(1) From the Education point of view—

"Many Churches or parents object to boys being taught soldiering at too early and age.

"Military drill, though easy of application, tends to make the boy part of a machine instead of developing his individuality, which is our chief aim.

"Military discipline is repressive, is a corrective measure imposed on the boy, whereas we desire to develop in him that self-discipline that comes of loyalty and the desire 'to play the game.'

(2) From the Military point of view—

"Excess of military training on a boy tends to bore him and destroy the ambition to serve when his time comes later.

"The Scout's Training is a far better foundation for ultimate soldiering or sailoring than any amount of drill.

"Unless you have specially good instructors, amateur military discipline is apt to spoil the boy for standing the real thing when he goes into the Service.

"For these reasons military training is not part of our policy, and, therefore, we have felt compelled to decline the help so kindly offered to us. But it was an awful temptation, seeing that our funds are running so perilously low!"

4. The Boy Scout Movement was organized in America (the "Boy Scouts of America"[1]) in 1910 with approval and coöperation of General Baden-Powell. It now has here a membership of over 200,000, with over 50,000 coöperating adults serving as scoutmasters, assistants, etc.

II. Means and Methods of American Boy Scout Education Summarized

1. Boy Scouts are organized as troops—thirty-two or fewer boys under a scoutmaster (always an adult). Eight boys make a patrol, one of these being a patrol leader. It is expected that troop meetings shall be held weekly and patrol meetings when practicable. These meetings must not interfere with regular school work, are partly for social, and partly for instructional purposes, and are expected to follow orderly procedure (parliamentary, in part). Minutes of meetings are kept by the Scout Scribe or Secretary. Scoutmasters are enjoined that "Every meeting should have its purpose, so that it may be conducted with profit to the boys. It is desirable not to take up too much time with instruction. If talks are to be given on First Aid, Signaling, Woodcraft, or any other subject, these talks should not continue longer than fifteen minutes. The rest of the time should be taken up with Scout games or with a social program. A right proportion of reality and romance is essential."

2. A wide range of activities ("man sized," but suited to youths from 12 to 18) is suggested (a few prescribed) for Boy Scouts, and very detailed printed guidance provided to supplement instruction of scoutmaster. Especially significant are:

[1] Address of Headquarters, 200 Fifth avenue, New York, from which can be obtained varied materials explaining in detail conditions and processes summarized in this paper.

a. Knot-tying, (for the tenderfoot); first aid and bandaging, signaling, tracking, use of knife and hatchet, fire building, simple camp cooking, knowledge of 16 compass points, earning bank deposit of one dollar (all required for second class Scout); swimming, signaling, money earning, "seven miles round trip alone," advanced first aid, advanced camp cooking, map-reading, use of axe for felling, distance judging, nature-study and training young boy as tenderfoot (all required for first class Scout).

b. The "hiking," exploration, camping, and coöperation incidental to, or required for the foregoing.

c. The wearing of the uniform.

d. The "daily good turn" (called by Jacob Riis "the core of the Boy Scout Movement"), and the watchfulness, serviceableness and inventiveness entailed in executing it.

e. The "Merit Badge Promotion" activities, about sixty in number ranging from Agriculture and Angling to Swimming (advanced) and Taxidermy, all of a practical nature, many involving life "in the open," and designed to appeal to almost every variety of taste and capacity.

f. The "public service" activities (ushering at conventions, guiding strangers, assisting G.A.R. veterans, helping in time of fire, flood, or other calamity, conducting "safety first" and "swat the fly" campaigns, cleaning of dirty lots, etc.) which inventive and public-spirited troops and patrols find ready to hand.

3. Fundamental to the organization and activities of Boy Scout Education are a number of general, and a very wide range of specific, ideals. It is unlikely that any patrol can be kept active if it does not persist and expand in a stimulating atmosphere of practical idealism (by which is meant the clear consciousness of ends of approved conduct which are capable, in large part, of realization). The most significant elements in this idealism are:

a. Prevalent ideals, at least in exploring and colonizing England and America, as to the character, activities, and social usefulness of the adult scout, as embodied in history, romance, and song. "Scoutcraft includes the qualities of our frontier colonists, such as resourcefulness, endurance, pluck,

trustworthiness, plus the chivalry of the Knights."—(Baden-Powell.) Boy imagination (and adult too) pictures the scout as keen, self-reliant, fearless, a keeper of promises, a man at all times physically "fit," respectful to women, no scoffer at things religious, reticent, unboastful. He avoids killing of man or beast to the utmost, but he fearlessly defends or attacks when safety, honor, or justice are dependent on fighting. The scout embodies moral wholesomeness as he does physical, not so much because they are right in themselves, as because they are the necessary conditions of "being prepared" and keeping "fit." Into this pervasive atmosphere of idealism, more ancient than any civilization, and still extraordinarily potent for the early adolescent, the aspiring Boy Scout is invited to enter.

b. At the outset he must take

THE BOY SCOUT OATH

On my honor I will do my best:

1. To do my duty to God and my country, and to obey the Scout Law;
2. To help other people at all times;
3. To keep myself physically strong, mentally awake, and morally straight.

c. He also proceeds to learn the Scout Law (assisted in the weekly meetings by scoutmaster or patrol leader or, individually, by a first class scout).

The Scout Law (as printed in Boy Scouts' Handbook for use of boys):

1. *A Scout Is Trustworthy.*

A scout's honor is to be trusted. If he were to violate his honor by telling a lie, or by cheating, or by not doing exactly a given task, when trusted on his honor, he may be directed to hand over his scout badge.

2. *A Scout Is Loyal.*

He is loyal to all to whom loyalty is due: his scout leader, his home, and parents and country.

3. *A Scout Is Helpful.*

He must be prepared at any time to save life, help injured persons, and share the home duties. He must do at least one good turn to somebody every day.

4. A Scout Is Friendly.

He is a friend to all and a brother to every other scout.

5. A Scout Is Courteous.

He is polite to all, especially to women, children, old people, and the weak and helpless. He must not take pay for being helpful or courteous.

6. A Scout Is Kind.

He is a friend to animals. He will not kill nor hurt any living creature needlessly, but will strive to save and protect all harmless life.

7. A Scout Is Obedient.

He obeys his parents, scoutmaster, patrol leader, and all other duly constituted authorities.

8. A Scout Is Cheerful.

He smiles whenever he can. His obedience to orders is prompt and cheery. He never shirks nor grumbles at hardships.

9. A Scout Is Thrifty.

He does not wantonly destroy property. He works faithfully, wastes nothing, and makes the best use of his opportunities. He saves his money so that he may pay his own way, be generous to those in need, and helpful to worthy objects. He may work for pay but must not receive tips for courtesies or good turns.

10. A Scout Is Brave.

He has the courage to face danger in spite of fear and has to stand up for the right against the coaxings of friends or the jeers or threats of enemies, and defeat does not down him.

11. A Scout Is Clean.

He keeps clean in body and thought, stands for clean speech, clean sport, clean habits, and travels with a clean crowd.

12. A Scout Is Reverent.

He is reverent toward God. He is faithful in his religious duties and respects the conviction of others in matters of custom and religion.

d. But the scoutmaster—ideally, a vigorous, athletic, educated, resourceful, "outdoor loving" young man, a "good fellow," but capable of inflexible sternness on occasion—must be the interpreter and evangelist of this idealism. On his sincerity, devotion, persistency and inventiveness much depends—or, in one sense everything, because no substitute for his qualities and control can be found. But, given this agent, numberless devices or aids in stimulating and giving concrete and specific direction to moral and civic idealism

are available. Among these are many of the activities referred to above, including the "Scout Sign," the "Scout Salute," the "Good Turn," and (now) a wealth of inspiring reading. As an illustration of the concreteness of the last, read the introductory statement in the Boy Scouts' Handbook (1917):

SCOUTCRAFT

"A Scout! He enjoys a hike through the woods more than he does a walk over the city's streets. He can tell North or South from the moss that grows on trees, and East from West by the shadows that trunks and branches cast. When matches are forgotten he laughs and proceeds to kindle a fire by rubbing two sticks together, or by striking steel on flint. The fire once started, what a breakfast, dinner, or supper he can prepare out there in the open! Does he enjoy the meal? Just watch him and compare his appetite with that of a boy who lounges at a lunch counter in a crowded city.

"A Scout does not run away or call for help when an accident occurs. He devotes all his strength and energy to assisting those who are in need. If a person has been cut he uses his first aid knowledge in stopping the flow of blood, gently and carefully binds up the wound, then, if necessary, he seeks other assistance. If a person has been burned his knowledge tells him how to alleviate the suffering. If anyone should be dragged from the water unconscious a Scout at once sets to work to restore respiration and circulation. He knows that not a minute can be lost.

"A Scout can talk to a brother Scout without making a sound by signaling with flags; or by tapping on a log he can imitate the click of a telegraph key, and in either manner he can spell out words and sentences.

"A Scout can tie a knot that will hold, he can climb a tree, the ascent of which seems impossible to others, he can swim a river, he can patch a tent, he can mend a tear in his trousers, he can tell you what weeds are poisonous and what are not, he can sight nut-bearing trees from a distance; if living near ocean or lake he can reef a sail and take his trick at the wheel, and if near any body of water at all he can pull an oar or use paddles and sculls; in the woods he knows the names of birds and animals; in the water he tells you the different varieties of fish.

"A Scout is kind to everything that lives. He knows that horses, dogs, and cats have their rights, and he respects them. A Scout prides himself upon doing kind deeds and no day in his life is complete unless he has been of aid to some person. A Scout is quick of eye, quick of hearing, and his muscles are well developed. In other words, a Scout is natural, and the better a Scout the further away he is from the artificial.

"A Scout never uses alcoholic liquors, because he does not wish to poison his body; he desires a clear, active brain and so he avoids tobacco. He never swears, because swearing is a sign of weakness as well as being sacrilegious.

"In fact, a Scout aims to be, in this, the twentieth century, as near as possible like those men who, two and three hundred years ago, pushed their way

into what then was the great North American forest, and blazed a way for what has become the United States. In those days our forefathers had to be ready for any emergency, and as a Scout of the present emulates the Scout of the past, he has chosen as his motto, 'Be Prepared,' and a better phrase could not have been selected, for it is both a motto and a slogan all in one. Be Prepared for anything—to do a kind act, to rescue a companion, to ford a stream, to gather kindling, to salute the flag, to build a fire—always be prepared."

III. Some Fundamental Pedagogical Considerations

For the purpose of obtaining a basis for the interpretation of the "Boy Scout System" of education, it is serviceable to classify all educative activities and influences (good or bad) under which a child or youth may come,—the direct education of schools (including Sunday schools), and the by-education of home, church, work-shop, playground, library, club, street, press, stage, museum, and police power,—into two divisions, according as they involve primarily:

a. Provision of opportunities for the expression and general satisfaction, expansion, differentiation and transmutation of the *natural*, *spontaneous*, *unforced* instincts towards growth, acquisition of specific powers, assimilation of knowledge, formation of ideals, building of experience, and miscellaneous achievement; or,

b. Systematic direction (instruction, training) of learning powers, under constraint and with exclusion of competing stimuli, towards certain definite goals of achievement, predetermined by the educators.

1. Concrete examples:

a. Under the first head we would usually place: child's acquisition of mother tongue and other powers acquired by natural imitation in home; wide range of activities included under "play"; ethical standards, ideals and taboos of playground, schoolroom, clique, gang; social life of college; play life of the "Rugby" type of school; focusing of social and competitive interests in gladiatorial exhibitions of interschool athletics; youth's reading of Sunday newspapers, children's magazines, fiction, travel, adventure; learning from moving pictures; participation in volunteer activities of young people's religious organizations; concrete experience gained

in wandering through woods, in summer camps, and in wage-earning "jobs"; experience in defying or evading police power; gang life; "picking up" a vocation; etc.

b. Under second head we should include: all organized and systematic instruction and training in schools, where attendance and tasks are compelled directly (for persons six to fourteen) or practically enforced (for persons fourteen to twenty-five years of age), by certain conditions of family law, requirements for success in life, and, in general, the "mill" of social (that is, economic, ethical, political) life. Include here also, usually: learning a vocation (under office, shop, farm or shipboard routine); compulsory military training; religious training for communion; etc.

c. Further distinctions: society approves first form of learning, primarily because it is "developmental"—part of "natural growth" processes. Ordinarily, ultimate outcomes, completion of stages, etc., of natural learning, are not closely scrutinized or evaluated. The chief conscious control of society is directed towards preventing wrong orientations (moral, physical), formation of "bad" habits (e.g., speech solecisms, combativeness, immoral habits, and excessive devotion of time, energy, and interest to these "play" activities, to the exclusion of the time, energy, and attention needed for "hard work" activities). Hence, in practice, large range of choice, and much flexibility, are possible in these "natural" learning activities. The learner is largely free "to take or to leave" any particular opportunity—sport, gang activity, picture show, athletic stunt, job, social gathering, etc. Social suggestion and native inclination play a large part in determining what will or will not be done.

d. The second form of learning expresses demands of civilized society for specific abilities, such as reading, writing, correct speech, trigonometry, knowledge of a foreign language, organized knowledge of history, correct habits of productive work, etc. Hence, relatively small opportunity is given for flexibility, once a definite field or direction is entered.

e. The first form of learning is commonly inexpensive. In favorable environment, freedom and time are all that is necessary. (Examples, farm, clean village, camp, conditions

of primitive industry, college campus life, etc.) The second form is expensive, requiring specialized teaching service, elaborate paraphernalia, etc. In the minds of many persons the word "education" denotes (and connotes) only the second form.

Youth and society usually compete for time for each form. Sometimes natural growth life is sacrificed,—small children of rich, ambitious, or misguided parents; the Paul Dombeys; forced buds; conscripted little wage earners learning to work steadily; etc. Sometimes the needs of civilized society are sacrificed to natural growth—illiteracy, "Huckleberry Finns," larger children of rich, idlers, sports, dilettantes, etc.

2. Where society is simply organized and a few highly approved useful activities are much in evidence and in group consciousness (tale, song, game), youths tend naturally to achieve useful mastery under procedures of "natural" learning. (Examples: boys acquiring warriors' art in clan, tribal and feudal society; children learning to read in bookish home; frontier boys learning to hunt, fish, trap, drive horses, "lassoo" cattle; village boys learning to drive automobiles, switch railway cars, tend store, canvass for subscriptions, instal electric wires, usher in theatres, etc.; and under some conditions, farm boys learning gardening, stock-raising, and farming.)

3. Educators sympathetic with spontaneous activities of childhood have always striven to utilize to the maximum "spontaneous learning instincts" to achieve ends of learning valued in civilized society. (Cf. Froebel, Pestalozzi, Rousseau, Arnold, Dewey, McMurry, Stanley Hall, Gill, George, and pioneers of work with boys' clubs, Boy Scouts, "corn clubs," church young people's societies, etc.)

As a result of these efforts, education of children under ten is now greatly enriched in two respects: (a) Many of the more formal ends of primary education are achieved by utilizing in part the higher play impulses and instincts (reading, number, composition); (b) the school also makes provision of means for fuller self-education (than could be provided by the home, street, etc.) through play and other forms of self-activity (playground, practical arts, nature-study, victrola, story-telling, coöperative activities, etc.).

It is doubtful if much has yet been accomplished purposefully in and through schools towards fostering of "natural" education for children over twelve. (From ten to twelve is now a twilight zone.) But young people over twelve develop by themselves many opportunities for self-education along non-academic lines (social life of the high school, "college life," sports, literary societies, reading, visiting movies, etc.)

4. Plans of great educators to promote ends of socially valuable learning through harnessing running waters of natural learning may succeed so long as the genius of an originator is at the helm,—then go to pieces in the hands of his successors. The reasons are:

a. The genius succeeds, partly by intuitive grasp, partly by forceful (even if concealed) personality. He therefore tends to undervalue organization, machinery, devices,—the only media by which ordinary men can achieve results.

b. Then, too, the genius is often provoked to action by his revolt against dead mechanisms in existing institutions. He therefore develops a hatred of mechanisms, devices, printed directions, rules, etc. He thinks "the letter killeth but the spirit giveth life."

c. But if the genius originating a new movement has the wisdom, the time, and the assistance to produce new mechanisms, then a long lease of vital life is possible for his venture. (Examples in social adult life: Jesuits, Mormons, Salvation Army, great corporations. In education, the Kindergarten, Hampton Institute, the Y. M. C. A.)

5. The conditions of modern urban (and suburban) life render it peculiarly necessary and urgent that the out-of-school (or outside-of-work) waking hours of young people twelve to twenty years old should be filled with wholesome activities leading towards sound physical, cultural, social (civic, moral) and vocational ideals and activities.

a. The situation in rural life, while fundamentally different from that of urban centers, presents its own problems also, especially along lines of social and cultural education.

b. It is to be recognized that this free time of city youths will be filled somehow—but not wholesomely or usefully, or, in the long run, pleasurably, if matters are left to chance.

c. The efforts to provide for this need in recent years on the part of churches, parents, philanthropists, etc., are familiar.

IV. Certain Primary Considerations in Pedagogy of Boy Scout Education

The "Boy Scout Movement" is a widely developed and, for the present, remarkably successful attempt to utilize the relatively spontaneous learning and other "achieving" instincts of boys from twelve to sixteen years of age towards a variety of ends of profitable development, physical, social (moral and civic), and cultural. It should be noted that:

a. Its educational objectives do not include those by custom belonging as primary objectives to the direct education of schools—the "studies," definitive forms of training, etc.

b. Some of its primary objectives resemble those sought as secondary or incidental objectives, sometimes under compulsion, in schools—certain forms of bodily posture, courtesy, respect for law and order, forthrightness of speech, truthfulness, courage, purity of word and act, etc.

c. "Boy Scout" education is organized to utilize the out-of-school time of the boy, although its moral influence is expected to overflow into conduct of work and play activities in school time; and it is especially enjoined that its claims for time and energy shall not be allowed to compete with those properly belonging to the school.

The conspicuously successful features of Boy Scout Education include the following:

1. It provides a wide range and variety of alluring activities for the leisure non-school time of boys from twelve to sixteen.

Under simple social and economic conditions—on farm, in connection with village shop or store, on ship-board, and in apprenticeship of former years—boys of this age are nearly always enlisted as helpers in productive work,—as herders, messengers, doers of chores, cleaners, etc. Hence, there are few idle hands and brains for the devil's work. But under modern conditions, especially in commercial, industrial, and mining centers, boys of these ages, debarred by custom or law from wage-earning work, and shut out even from obser-

vation of their elders at work, have much leisure time. They also have, often, an actual superabundance of physical energy seeking expression; and economic conditions have caused opportunities for control by father or uncles to diminish, even at times, disappear.

2. The "activities" provided in Boy Scout Education look towards out-of-door life, elemental practical occupations closely associated with the boys' natural "instincts of achievement" (i.e., natural learning), and the development of those cruder virtues which naturally appeal to, and evoke response from, youths passing from puberty to adolescence. Hence, they offer especial opportunities to boys of middle class urban or suburban homes,—whose available opportunities for life in the open are few, who are starved as regards openings into elemental or primitive or crude occupations, and whose home environment is often so formal and respectable and woman-ruled that only surreptitiously and, perhaps illicitly, can the cruder and more masculine expressions of the various "virtues" find outlet.

Given no such opportunity as provided by the Scout education, boys of middle, as well as lower, economic classes, in city homes become, in part, (a) rough, indifferent to their refined surroundings, somewhat dissipated, interested usually as observers, sometimes as participants, in athletics, and, later, workers as casuals at "hard jobs"—the "wasters" of England; or (b) soft and somewhat effeminate dilettantes, interested in neckties, girls, miscellaneous reading, and refined athletics, and, later, holders of "soft" routine jobs—of the clerkship type.

3. The pedagogical genius, conscious or unconscious, of the founders of the Boy Scout System of extra-school education (Baden-Powell generously calls himself an "uncle" of the movement, and includes among its "fathers" Thompson-Seton and Dan Beard) is especially shown: (a) in the fact that the ideals made conspicuous (for the scouts) and the activities enjoined are in every great degree "man-sized" and "man-used," but adapted to boys in that transitional period when they still want in large part to "behave like kids, but be treated like men"; and (b) in the fact that the whole scheme of training is based on practicable "teaching units," "stunts," "graded steps," "projects,"

concrete achievements, specific opportunities for self-measurement and self-criticism.

a. Nearly all the accomplishments required in promotions,—tenderfoot to second class, second class to first, first to patrol leader, etc., and in acquiring merit badges,—have even yet some functional value in many walks of life, especially camping, farming, war, and colonization.

b. Many of the activities are predominantly physical, consisting of quite definite units of physical achievement, and each requiring relatively little "initial instruction," but much private practice,—generally individual practice,—to produce required proficiency.

Provision is made for leadership of virile young men at the age when, under present circumstances, a boy's home and a boy's school fail to provide it, but at which it is most necessary.

a. In English schools boys of this age are usually taught by men, but these men, it is alleged, are often not interested in extra-academic learning, are bookish and lacking in virility.

b. In American schools boys from twelve to fourteen unfortunately rarely have men teachers at all.

V. Methods and Results

The results of Boy Scout education, realized through the utilization of the more spontaneous or "natural" learning tendencies in activities carried out in an atmosphere of idealism, give, most conspicuously, what we vaguely call "character"—which is, of course, an exceedingly composite and complex resultant of numberless specific habits, appreciations, understandings and ideals, merged, doubtless in some degree into "generalized" ideals, insights, and attitudes. Obviously, too, important enduring qualities affecting physical well-being and intellectual powers are important by-products.

a. In the fields of direct and purposive training and instruction—all those in which results, required by conditions of civilized society, must be sought by methods often far removed from those of spontaneous or natural learning,—it is right that objectives or purposes should be defined and evaluated, even down to their details, and that the comparative efficacy of means and methods employed to realize them

should be stringently tested (e.g., reading, writing, foreign language, exact science, mathematics, etc.). The determining goals of such education lie ahead and should be clearly in sight.

b. But in "natural learning" the goals in advance, if visible at all, are necessarily indeterminate, composite. Rather must we have faith in the ultimate efficacy of "natural development," if we give it scope and freedom, and preserve it from corrupting or corroding influences. Hence society now favors full opportunity for "play" education on the part of young children, although well aware that many specific forms of skill and organized experience obtained therein will later be laid aside with childhood's toys. We have faith in the resulting development, the unanalyzed and, perhaps unanalyzable, residual products.

c. Similarly, the Boy Scout may lay aside or even forget many specific things learned from scouting; but we must have faith that, on this higher plane of play, of developmental free activity, residual effects will persist.

The following are noteworthy facts regarding pedagogical means, methods, and results of Boy Scout education:

1. The illusions of the "faculty psychology," sometimes expressed as "the doctrine of formal discipline," have influenced its pedagogy hardly at all. The common sense and practical experience of the founders and promoters of the movement have thus far saved their ideals and practices from mysticism, from search for panaceas, from dependence upon educational "simples."

a. Necessarily, in their written and oral communications the leaders summarize their purposes in vague "omnibus" words—often the only compact terms available. They speak of teaching "loyalty," of making the boys "resourceful," of producing "mental alertness." But their practice indicates that they are not deluded into thinking that the pursuit of a few specific lines of activity will produce these general qualities. They recognize that it takes many "loyalties" to make loyalty (the specific forms being often unlike, sometimes directly opposed to, each other).

b. Hence Boy Scout pedagogy is everywhere characterized by its emphasis on the importance of the small units of activity that ultimately blend into large wholes—the bricks that make the wall. It emphasizes, too, varied experience—herein differing from that of many school educators who assume to find much virtue in a few "simples" for character or mind training. Its processes are endlessly cumulative, whether in building the ideals of "be prepared," "duty to country," "keep myself morally straight," or in developing the more specific "virtues" of the Scout Law,—trustworthiness, helpfulness, etc.

c. While, therefore, physical, moral, and intellectual disciplines are always objectives in Boy Scout education, they are *implicit* objectives. Every activity has its own disciplinary possibilities; every stage in progress upward has its own peculiar disciplinary requirements, and is expected to impart a permanent residue to the larger trained capacity resulting as a composite by-product.

2. The means and materials of Boy Scout education are very successfully *graduated*: that is, divided into stages, steps, "stunts," exercises, projects, activities, units of learning, units of "achievement," topics for study, goals of attainment (none of these terms adequately represent the educational principle involved), which appeal to the learner as being concrete and attainable. There is thus enlisted the maximum of motive for accomplishment. The learner is not baffled by the difficulty of a particular stage or stunt, nor discouraged by inability to see whither it leads or what is its end. (Contrast the "counter-suggestion" resulting from many of the abstract, remote, and difficult tasks of school education, in some cases, necessarily.)

a. Except as regards certain requirements for promotion, there is also large opportunity to elect, according to interest and capacity, particular activities (for Merit Badges etc.).

b. Note that evening school vocational education has become successful largely as it has developed the concrete "short unit" as its stage of immediate accomplishment by the individual who, typically, has only limited ability to see far into the future, or to compass, in imagination, a large mass of work, much of which lies beyond his perceived need.

c. Someone once said, "there is no royal road to geometry." This has often been taken, foolishly, to justify leaving the roads to geometry (and to other accomplishments, particularly in vocational fields) in a state of nature or, at least, neglect. It *is* the business of education to make a royal road to geometry—of course, it cannot be all a downhill road—in so far as grading of rough places, cutting steps in the cliffs that must be climbed on foot, and putting signs at the forks, can accomplish this purpose. In the organization of means and methods, Boy Scout education shows many well graded roads.

3. As befits a system based so largely on "natural" learning, Boy Scout education utilizes a very large number of "self-carrying" activities—that is, of a kind which, once the suggestion is made to the learner and, perhaps, a few initial instructions given, lend themselves to learning processes quite independent of the presence of a teacher.

a. Examination of the "activities" will show that nearly every one is capable of being learned by an interested boy working alone or with a fellow; and that, in most cases, he can readily also utilize the silent and inexpensive help of printed directions. The contrast with ordinary school education where the learner is usually very dependent upon detailed, orally stated directions from, and constant oversight of, the teacher is marked (note especially practical work of household arts, manual training, stenography, and trade teaching; a noteworthy exception is found in "Home Gardening," where methods akin to those of scout education are found).

4. Employment of many "self-carrying" units of learning makes possible accumulation of experience and development of composite attitudes and ideals that are described by popular general terms as responsibility, resourcefulness, inventiveness, adaptability, self-reliance, pluck, "gumption," independence, "sand," "nerve," common sense, helpfulness, initiative, persistence, thoroughness, attention to detail, concentration, etc., all of which, in noteworthy measure, are produced by scout training.

a. Note that these are, in popular fancy and in fact, marked qualities in frontiersmen, colonists, scouts, etc.—due partly

to selection, doubtless, and also to the needs confronting these people in youth and manhood.

b. Note the readiness with which even men of long experience as well as thoughtful educators fall victims to the "formal discipline" fallacies in planning for production of these qualities. We think that by working hard for initiative (or inventiveness, etc.) in some one sphere of activity, we can insure its manifestation with less teaching in other spheres; whereas Boy Scout education, as noted before, makes "initiative," as a more or less (apparently) "general" quality, largely a mosaic of many special powers and habits of initiative.

c. Unquestionably, where motive is powerful and concrete experiences many, varied, and intense, the learner will idealize and in important measure generalize these qualities; but how far and under what circumstances such generalizing processes take place seems to be yet hidden to psychology. Practically, at least in processes of "natural" education, it may prove best to provide abundance of opportunities for "functioning" concrete experience on the part of the learner, all obtained in a stimulating atmosphere of idealism practically interpreted at a thousand points, and leave the rest to "natural growth." In effect, that is what Boy Scout education does.

5. Coöperation and mutual aid play a large part in methods of Boy Scout education. The patrol is a small group (eight preferably). Boys give each other endless help and suggestion in all activities, but each individual also must finally stand on his own feet. Many activities (signaling, hiking, tracking, first aid, etc.) involve definite team play. A variety of habits of, and attitudes towards, coöperation are clearly established, whilst ideals of "helpfulness," "duty towards God," "duty towards country," and "reverence," are being built up.

6. The motive of competition, so much used formerly in schools, and now dominant in athletics, is employed sparingly in Boy Scout pedagogy, and hardly at all in the forms once familiar in schools, as "head and foot of class," the winning of prizes, etc., or as now found in "winning the game," "beating the other fellow," "saving the honor of the school at all costs," etc.

a. Competition as used in schools and athletics commonly involves "winning" by one, "losing" by another. In practice, the "winner" becomes such more by virtue of superior natural endowment than through self-developed virtues. Hence "winning," whilst a source of much satisfaction, may not add to moral strength. The effects, moral and other, of losing on the loser (again, often because of what nature has or has not done for him) have not been sufficiently studied; but it can well be surmised that they are usually bad.

b. The absence of prizes or other tokens, the "winning" of which also involves a loser, in Boy Scout education expresses the distrust of the founders in the kind of contest, struggle, game, or competitive expression which gives social prominence to defeat as well as to victory.

c. The less formal activities of Boy Scouts involve many instances of competitive games, such as "smugglers," "hunting thieves," "hare and hounds," "first aid" competitions, but the effects of defeat here, it is clear, differ radically from defeat in organized and sustained contests. No official awards are given in these contests.

d. Inter-corporate competitions where large numbers give social approval and support to respective competing teams or individuals—e.g., the gladiatorial contests between counties, (English football), colleges, secondary schools, etc., seem quite absent from Boy Scout education, notwithstanding that, if approved, the form of organization would lend itself readily to it. (Remark disastrous effects sometimes of prizes—of large money value sometimes—in inter-county and interstate competitions in "home-garden" and "corn-club" education). We are justified, in the absence of formal expression, in assuming that Boy Scout education does not favor use of competition of "downing-the-other-fellow" character.

e. Doubtless much opportunity is given, when scoutmasters have right ideals, to friendly emulation—where all are striving towards goals open to all.

f. Also, very full and organized provision is made for "competition with one's self"—or rather with one's former record. Most of the activities make this clearly possible. (It will be recalled that Rousseau favored this as the only

true and justifiable competition that educators, looking always towards increasing kindliness of feeling, coöperation, and tolerance, should employ.)

7. Like other forms of "natural" education, not designed to function in specific, permanently usable powers, Boy Scout education differs from the "direct" education of schools, in that any portion or quantity of it is useful. Hence, even a month of active interest in Scouting is advantageous, even if further attendance proves impracticable.

VI. Evaluations and Criticisms

1. No scientific evaluations of the results of Boy Scout education have as yet been undertaken. We can rely only upon our practical judgment of what constitutes satisfactory results, and upon popular approval of means and methods employed.

a. It should be realized, of course, that we can satisfactorily evaluate as yet very few phases of school education. Witness contemporary confusion and uncertainty regarding actual (as against imagined) values of high school education.

b. The writer believes that, wherever Boy Scout troops have been formed, parents, teachers, ministers and other citizens have approved all the activities undertaken. He has not heard of complaints, or of the decline of patrols into "gangs."

2. Only a few extremists see anything to suggest militarism in the Boy Scouts. The founders and promoters expressly disclaim any intent of making, or contributing to the making of soldiers except in the sense that the making of the good man and citizen is a large factor in the making of effective defenders of their country. Proponents of "preparedness" in some cases, and especially in England, think more should be made of positive activities designed to prepare "defenders." But in America present centering of ideals in efficient citizenship gives the movement its strongest position.

3. The volunteer, properly prepared, scoutmaster is now an indispensable factor in Boy Scout education. Probably as the movement grows, becomes solidly established, the supply of available intelligent young men, fond of out-doors and boy life and possessed of a touch of missionary spirit—in many cases matured Boy Scouts—will increase. But at present the

problem of supplying properly equipped scoutmasters is the most difficult one encountered.

a. As Scouts grow to young manhood they may be expected, in increasing numbers, each to give two or three years at least to this service.

b. The promotion throughout society of a higher civic idealism and an altruistic interest in service should do much to keep the supply of scoutmasters replenished.

4. What may be expected to be the possible scope in America of the Boy Scout movement? On the basis of present population there are in this country, in round numbers, upwards of 6,000,000 boys of from twelve to sixteen years of age inclusive, and over 2,000,000 from sixteen to eighteen years old. Of the foregoing, approximately half live in distinctly rural surroundings. Over half of the rest are the children of wage-earners low in the economic scale, where the necessity of wage-earning at or about fourteen takes the boy out of school and, often, away from all opportunities to play. Potentially, most of the foregoing should be reached by the Boy Scout Movement. But many questions of administration and readjustment have, doubtless, yet to be faced especially in the following cases: (a) boys living in distinctively rural areas; (b) sons of poorer wage earners, who must begin self-support at or near fourteen years of age; (c) youths upward of seventeen years of age; and (d) boys with bad habits already established.

VII. What Can be Learned from Boy Scout Education for Organized Education in or through Schools?

1. If schools are to produce types, or to realize ends, of education similar to those now derived from the means and methods of Boy Scout Education, they must first make provision for the necessary administrative extensions, such as: (a) Specially qualified service (as now in some places for athletics); (b) extended time or lengthened school day (perhaps to include evenings, Saturdays, vacation periods, etc.).

a. The administrative machinery for schools for youths from twelve to sixteen as now constituted is adapted primarily for regular school work or direct education of other than the "natural" type. Some of this machinery could be

reorganized, but not much of it should be displaced to provide types of "free" education like Boy Scout training. Time now used for regular school work should continue to be reserved almost wholly for this purpose. Organized "natural" education in and through schools would require additional time and additional (and specialized) service, in the main.

b. The administrative mechanisms of the Gary Schools—long school day, broad departmentalizing of work, special equipment for each broad type of work—suggest what might be required.

c. A few boarding schools,—where extensive provision is made for volunteer horseback riding, exploration, trail-cutting, live stock care, etc.,—suggest possibilities.

d. Many boys' summer camps offer excellent suggestions.

2. More fundamentally, the schools must learn to differentiate their educational objectives so as to give suitable place to that group which can be realized through pedagogical methods analogous to those characteristic of Boy Scout education, as distinguished from those to be realized through studies, drill, etc.

a. Few educators yet appreciate the significant distinctions between these classes of objectives, as found in education of youths of twelve to sixteen. A few directors of athletics and pioneers in home gardening work are perhaps the exceptions. Those schoolmasters who sympathetically direct 'playground' activities of English boarding schools have a valuable point of view. Many teachers following the lead of Parker, McMurry, Dewey, *et al*, rightly appreciate the situation as it affects children under ten years of age.

b. For the present, it would be especially practicable to build up a series of objectives suited to the extra-academic education of boys twelve to sixteen in (a) outdoor physical education; (b) shop and garden and office "practical arts"—by utilizing the "amateur" spirit in productive activity; (c) community social science (or citizenship) training through service activities, a field largely untried as yet, except sporadically in town "clean-up" days, etc.

c. But these could not be made obligatory. Obligatory activities of a different and limited kind might be provided for those who are not, for any reason, eligible for the "voluntary" classes.

EXPERIMENTS COMPARING THE COST OF MEAT AS PURCHASED AND AS EATEN*

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Only after a long series of oft-repeated experiments, can we learn to be intelligent spenders, able to distinguish between the *original* cost of our food and its *actual* cost after the elimination of waste, loss in cooking, discarding at table and discarding in the kitchen; to know which cuts of meat will prove most economical and yet satisfy the family needs and tastes. Knowledge of the relatively small percentage of the purchased meat which is actually eaten leads to a realization of the necessity for the wise utilization of waste. A study of various cuts of meat shows the economic advantage of one over another—rib chops may be purchased at 28 cents per pound, and so may loin chops; but the edible portion of the rib chop costs $1.33 per pound, of the loin chop only 64 cents per pound.

A study of quantitative data, similar to the following, enables the housewife to determine intelligently the reasonableness or unreasonableness of the charges for cooked food. A consideration of the great increase in the cost of food in cooking will undoubtedly make her more charitable in her criticism of the delicatessen. If, in her own household, it costs her $1.08 per pound to serve roast chicken—not including her expenditure of time and fuel—should she complain at the price of $1.25 per pound charged by the "delicatessen man" for the choicest slices of such meat? Would she sell it for that price?

* These experiments were the work of Household Arts 231, Research in Cookery, October to January, 1915,—1916. (Day Monroe, Edith Ingham, Ethel Dole.)

Much has been said of the use of so-called "cheap cuts" as substitutes for the more expensive cuts. It is commonly thought that a "cheap cut" palatably cooked and well garnished may show the way to one remedy of the high cost of living. Taking the brisket as an example, we find that it costs, when purchased, 56 cents; when cooked and served with an appetizing sauce, the cost becomes 90 cents. Taking into consideration the loss in weight by cooking and by trimming the cost has gone from 15 cents per pound, as purchased, to 68 cents per pound, edible portion, without the sauce. Bulletins on "cheaper" cuts of meat give recipes for a pot roast, but do not include a delmonico steak. Yet the delmonico steak costs the same or a little less than the pot roast as eaten. It must always be remembered that to make a cheap cut palatable requires the expenditure of fuel, seasoning, time, and energy, and the cost of all of these must be added to the *original* cost for a fair estimate of *relative* costs.

We are sensible of the great difficulty in standardizing such experiments as the following so that they shall signify to the reader exactly what the experimenter intended. We have had to content ourselves with the eliminating of the sources of error as far as possible from our own viewpoint on the experiments. No attempt has been made at averaging. The chops and steaks were so variable that each result has been allowed to stand by itself. The cuts chosen were fair examples of the variations which might be expected to occur in a week's marketing by the same individual. The amount of material eaten and discarded by individuals varies to such an extent that reliable figures are of course difficult to obtain.

"Utilizable" and "non-utilizable" portions are also variable terms. By "utilizable" we mean suitable for stew and stock. By "non-utilizable" we mean discolored portions, skin and the bone attached to it. In every case we have tried to give the benefit of the doubt to the experiments, discarding more conservatively than many housewives so as to increase the cost of the edible portion as little as possible.

In the following experiments, the chops and steaks were pan broiled, this method of cooking being one which can be used in any section of the country, regardless of the fuel. All weighings were made in grams.

RIB LAMB CHOPS—FRENCHED

Chop No	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Weight of chop as purchased	128.5	135.8	107.8	135.8	140.8	140.1
Weight of trimmings non-utilizable	26.4	24.7	26.7	30.2	14.4	7.2
Percentage loss by trimming	20.5%	18.19%	24.7%	22.2%	10.2%	5.1%
Weight of trimmings utilizable	33.5	41.7	25.8	32.1	31.8	38.3
Percentage loss by utilizable trimmings	26.07%	30.7%	23.9%	23.6%	22.5%	27.3%
Weight lost in cooking, largely evaporation	10.7	10.4	7.3	12.1	17.3	16.8
Percentage loss by cooking.	8.3%	7.65%	6.7%	8.9%	12.2%	11.9%
Weight of juices and fat in pan	4.3	4.8	4.2	6.2	13.3	3.
Percentage loss by fat and juices left in pan	3.4%	3.53%	3.8%	4.5%	9.4%	2.1%
Weight of bone and uneaten portion	26.6	31.8	21.3	19.9	38.1	42.4
Percentage loss by bone and uneaten portion	20.7%	23.42%	19.7%	14.6%	27%	30.2%
Weight of edible portion	*27.0*	*22.4*	*22.5*	*35.3*	*25.9*	*32.4*
Percentage edible	*21%*	*16.42%*	*20.8%*	*25.9%*	*18.3%*	*23.1%*
Cost of chop as purchased	*$.079*	*$.083*	*$.066*	*$.083*	*$.086*	*$.086*
Cost per pound	*$.28*	*$.28*	*$.28*	*$.28*	*$.28*	*$.28*
Cost per pound, edible portion	*$1.33*	*$1.69*	*$1.34*	*$1.08*	*$1.52*	*$1.21*

RIB LAMB CHOPS

Chop No	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Weight of chop as purchased	121.5	111.9	122.0	120.0	128.6	134.7
Weight of trimmings before cooking	10.1	7.8	5.1	7.5	8.9	11.2
Percentage loss by trimming	8.31%	6.42%	4.18%	6.25%	6.92%	8.3%
Loss in weight by cooking	18.6	17.4	7.4	9.9	26.4	18.9
Percentage loss by cooking.	15.3%	15.5%	6.06%	8.25%	20.5%	14.03%
Weight of juices and fat in pan	11.0	14.1	9.9	12.2	5.6	7.1
Percentage loss by fat and juices left in pan	9.05%	12.6%	8.11%	10.16%	4.3%	5.2%
Weight of bone and uneaten portion	52.3	49.3	75.3	47.	55.5	54.1
Percentage loss by bone and fat discarded at table	43.04%	44.05%	61.7%	39.16%	43.1%	40.1%
Weight of portion eaten	*29.5*	*23.3*	*24.3*	*43.4*	*32.2*	*43.4*
Percentage of chop eaten	*24.28%*	*20.82%*	*19.91%*	*36.16%*	*25.%*	*32.2%*
Cost of chop as purchased	*$.075*	*$.069*	*$.075*	*$.074*	*$.079*	*$.083*
Cost per pound, as purchased	*$.28*	*$.28*	*$.28*	*$.28*	*$.28*	*$.28*
Cost per pound of edible portion	*$1.15*	*$1.34*	*$1.40*	*$ .774*	*$1.11*	*$.869*

LOIN LAMB CHOPS

Chop No	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Weight of chop as purchased	157.9	126.9	130.6	148.5	150.2	158.9
Weight of trimmings before cooking	14.9	11.7	11.7	14.1	16.1	7.9
Percentage lost in trimming	9.5%	9.2%	8.9%	9.4%	10.7%	4.9%
Weight lost in cooking	24.2	27.7	34.1	32.9	24.5	23.9
Percentage loss by cooking	15.4%	21.9%	26.1%	22.1%	16.3%	15.%
Weight of juices and fat in pan	13.3	11.2	12.	10.4	12.	8.8
Percentage loss in fat and juices	8.4%	8.7%	9.1%	7.06%	7.9%	5.5%
Weight of bone and uneaten portion	37.3	35.7	11.7	26.5	30.8	30.3
Percentage of chop discarded as bone, etc., at table	23.6%	28.1%	8.8%	17.9%	20.5%	19.%
Weight of portion eaten	*68.2*	*40.6*	*61.1*	*64.6*	*66.8*	*88.*
Percentage of chop eaten	*43.1%*	*31.9%*	*47.1%*	*43.5%*	*44.4%*	*55.3%*
Cost of chop as purchased	*$.097*	*$.078*	*$.0806*	*$.091*	*$.0927*	*$.098*
Cost per pound	*$.28*	*$.28*	*$.28*	*$.28*	*$.28*	*$.28*
Cost per pound of edible portion	*$.649*	*$.871*	*$.593*	*$.642*	*$.63*	*$.506*

SHOULDER LAMB CHOPS

Chop No	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Weight of chop as purchased	135.8	164	286.4	294.2	271.	266.6
Weight of trimmings non-utilizable	7.5	10.1	15.8	13.5	18.1	11.8
Percentage loss by such trimming	5.5%	6.15%	5.5%	4.59%	6.6%	4.4%
Weight of trimmings utilizable	25.8	40.	38.	32.	33.3	59.8
Percentage loss by utilizable trimmings	18.9%	24.39%	13.27%	10.87%	12.2%	22.43%
Weight lost in cooking	26.4	34.7	55.2	76.1	63.1	40.9
Percentage loss by cooking	19.3%	21.15%	19.27%	25.86%	23.2%	15.35%
Weight of juices and fat in pan	2.6	2.9	16.9	23.9	13.5	11.
Percentage loss by fat and juices in pan	1.9%	1.77%	5.9%	8.12%	4.9%	4.12%
Weight of bone and uneaten portion	17.2	13.5	62.4	47.6	24.4	41.
Percentage loss by bone and uneaten portion	12.6%	8.23%	21.7%	16.2%	9%	15.39%
Weight of edible portion	*56.3*	*62.8*	*98.1*	*101.1*	*118.6*	*102.1*
Percentage eaten	*41.4%*	*38.2%*	*34.3%*	*34.3%*	*43.7%*	*38.2%*
Cost of chop as purchased	*$.0628*	*$.0755*	*$.132*	*$.136*	*$.125*	*$.123*
Cost per pound	*$.21*	*$.21*	*$.21*	*$.21*	*$.21*	*$.21*
Cost per pound of edible portion	*$.507*	*$.548*	*$.612*	*$.611*	*$.48*	*$.548*

LOIN PORK CHOPS

Chop No.	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Weight of chop as purchased	135.3	91.6	99.5	109.2	104.9	147.4
Weight of trimmings non-utilizable	2.5	2.	.8	1.5	0	1.
Percentage loss by trimming	1.84%	2.2%	.8%	1.3%	0	.6%
Weight lost in cooking	30.7	18.3	21.7	25.5	25.7	32.6
Percentage loss in cooking	22.69%	19.97%	21.8%	23.3%	24.4%	22%
Weight of juices and fat in pan	8.1	8.	9.8	7.5	17.6	10.7
Percentage loss by fat and juices left in pan	5.98%	8.73%	9.8%	6.8%	16.8%	7.2%
Weight of bone and uneaten portion	33.5	23.2	21.2	11.3	12.4	32.5
Percentage loss by bone and fat uneaten at table	24.76%	25.32%	21.3%	10.3%	11.8%	22%
Weight of edible portion	*60.5*	*40.1*	*46.*	*63.4*	*49.2*	*70.6*
Percentage of chop eaten	*44.7%*	*43.7%*	*46.2%*	*58.0%*	*46.8%*	*48.2%*
Cost of chop as purchased	*$.0686*	*$.0463*	*$.0504*	*$.055*	*$.053*	*$.074*
Cost per pound	*$.23*	*$.23*	*$.23*	*$.23*	*$.23*	*$.23*
Cost per pound of edible portion	*$.514*	*$.525*	*$.497*	*$.396*	*$.489*	*$.48*

ROUND BEEF STEAK

Steak No.	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Weight of steak as purchased	189.	203.1	190.9	185.9	254.2	221.1
Weight of trimmings non-utilizable	8.	6.6	9.2	8.4	6.6	6.5
Percentage loss by non-utilizable trimmings	4.1%	3.2%	4.8%	4.5%	2.5%	2.94%
Weight lost in cooking	29.1	28.3	33.	34.3	51.1	45.1
Percentage loss by cooking	15.4%	13.9%	17.2%	18.4%	20.1%	20.39%
Weight of juices and fat in pan	13.3	9.2	16.	13.5	9.8	17.9
Percentage loss by fat and juices in pan	7.%	4.5%	8.3%	7.2%	3.85%	8.09%
Weight of uneaten portion	27.9	34.5	12.4	3.6	31.3	48.6
Percentage loss by bone and uneaten portion	14.7%	16.9%	6.4%	1.9%	12.28%	21.98%
Weight of edible portion	*110.7*	*123.6*	*120.3*	*126.1*	*155.4*	*103.*
Percentage of edible portion	*58.5%*	*60.8%*	*63.%*	*67.8%*	*61.1%*	*46.5%*
Cost of individual steak as purchased	*$.104*	*$.109*	*$.105*	*$.102*	*$.14*	*$.12*
Cost per pound	*$.25*	*$.25*	*$.25*	*$.25*	*$.25*	*$.25*
Cost per pound of edible portion	*$.426*	*$.410*	*$.39*	*$.36*	*$.408*	*$.536*

SIRLOIN BEEF STEAK

Steak No	No. 1.	No 2
Weight of steak as purchased	1578.2	1900.5
Weight of trimmings non-utilizable	44.3	64.8
Percentage loss by such trimming	2.8%	3.4%
Weight of trimmings utilizable		29.9
Percentage loss by utilizable trimmings		1.6%
Weight lost in cooking	283.2	194.2
Percentage loss by cooking	17.94%	10.2%
Weight of juices and fat in pan	83.1	116.7
Percentage loss by fat and juices in pan	5.26%	6.1%
Weight of bone and uneaten portion	242.5	401.9
Percentage loss by bone and uneaten portion	15.36%	21.1%
Weight of edible portion	*925.1*	*1093.*
Percentage eaten	*58.61%*	*57.5%*
Cost of individual steaks as purchased	*$.974*	*$1.173*
Cost per pound	*$.28*	*$.28*
Cost per pound of edible portion	*$.477*	*$.486*

PORTERHOUSE BEEF STEAK

Steak No	No. 1	No. 2
Weight of steak as purchased	1338.5	1374.
Weight of trimmings non-utilizable	43.3	61.3
Percentage loss by such trimmings	3.23%	4.4%
Weight of trimmings utilizable		
Percentage loss by utilizable trimmings		
Weight lost in cooking	215.6	201.9
Percentage loss by cooking	16.1%	14.6%
Weight of juices and fat in pan	114.6	130.9
Percentage loss by fat and juices in pan	8.56%	9.5%
Weight of bone and uneaten portion	217.5	200.4
Percentage loss by bone and uneaten portion	16.25%	14.5%
Weight of edible portion	747.5	779.5
Percentage eaten	55.84%	56.7%
Weight of edible portion	*747.5*	*779.5*
Percentage eaten	*55.84%*	*56.7%*
Cost of individual steaks as purchased	*$.885*	*$.908*
Cost per pound	*$.30*	*$.30*
Cost per pound of edible portion	*$.535*	*$.529*

DELMONICO BEEF STEAK

Steak No	No. 1	No. 2	No. 3
Weight of steak as purchased	619.6	687.1	663.2
Weight of trimmings non-utilizable	54.9	55.3	42.8
Percentage loss by such trimming	8.8%	8.04%	6.44%
Weight lost in cooking	96.2	87.4	99.3
Percentage loss by cooking	15.5%	12.7%	14.97%
Weight of juices and fat in pan	44.	57.6	21.1
Percentage loss by fat and juices in pan	7.1%	8.2%	3.18%
Weight of bone and uneaten portion	122.	101.7	81.7
Percentage loss by bone and uneaten portion	19.5%	14.8%	12.31%
Weight of edible portion	*303.5*	*385.1*	*418.3*
Percentage eaten	*48.8%*	*56.0%*	*63.0%*
Cost of individual steaks as purchased	*$.382*	*$.424*	*$.409*
Cost per pound	*$.28*	*$.28*	*$.28*
Cost per pound of edible portion	*$.57*	*$.499*	*$.443*

HAM

Weight of ham as purchased	4847.8 gms.
Weight of bone taken out	326.0
Percentage loss of bone	6.7%
Total loss in cooking by evaporation and juice	1062.9
Percentage loss in cooking	21.1%
Utilizable waste (fat)	752.2
Percentage of utilizable waste	15.5%
Non-utilizable waste:	
Skin	467.4
Bone	113.4
Total	580.8
Percentage of non-utilizable waste	11.9%
Edible portion	2125.8
Percentage of edible portion	43.8%
Cost as purchased	*$2.002*
Cost per pound as purchased	*$.19*
Cost per pound of portion eaten	*$.433*

FOWL

Weight as purchased	2927.3
Weight of trimmings non-utilizable, feet, head, etc	935.3
Percentage loss by non-utilizable trimmings	31.95%
Loss of weight in cooking	907.2
Percentage loss by cooking	30.97%
Weight of bone and skin discarded	411.4
Percentage loss by discarded bone and skin	14.05%
Weight of edible portion	673.5 gms.
Percentage of fowl edible	23.%
Total cost of fowl	*$1.61*
Cost of fowl per pound as purchased	*$.25*
Cost per pound of edible portion	*$1.08*

The fowl was not drawn when purchased, and the liver, gizzard and heart are included in the edible portion. The method of cooking was stewing.

For $1.61 there is the following finished product: Stock, utilizable, there are 3½ cups. Meat, edible, there are 673.4 gms., divided as follows: Pieces suitable for salad or creaming, 489.1 gms., or 16.7% of the fowl as purchased; pieces, very small, suitable for minced sandwiches, 184.3 gms., or 6.3% of the fowl as purchased.

Some Experiments on Typical "Cheap Cuts"

The following experiments show that the cuts commonly called "cheaper" would better be termed "less expensive." They are ordinarily considered in the light of their purchase price and many of us have accepted their "cheapness" on their face value, without putting them to the test of experimentation. We are far from claiming that it is necessary to spend as much per pound on the cooking and serving of the brisket as the following figures indicate. A very keen appetite would be satisfied with the cold meat, ungarnished by the sauce, but in order to make the brisket as *palatable as possible* the sauce is needed for piquancy to tempt the appetite of the sedentary worker.

Fuel cost has been added but no attempt has been made to place a monetary value on the time spent in preparation of these dishes,—and the added time is a factor which would have to be considered.

POT ROAST

Weight of roast as purchased	1428.3 gms.
Weight of trimmings non-utilizable	59.8 gms.
Percentage loss by trimming	4.18%
Loss in weight by cooking	233.2 gms.
Percentage loss by cooking	16.32%
Weight of juices and fat in kettle	351.8 gms. (1+ cups)
Percentage loss from roast by juices and fat in kettle (utilizable for gravy)	24.63%
Weight of edible portion of roast	783.5 gms.
Percentage of pot roast eaten	54.85%
Cost of roast as purchased	$.818
Cost of gas for cooking:	
One simmering burner 4 hrs.....20 cu. ft.	
One full burner for searing and for heating water 20 min..... 5 cu. ft.	
Total amount gas used.....25 cu. ft.	
Cost at $.80 per thousand cu. ft.....	.02
Total cost of roast, cooked	*$.838*
Cost of roast per pound as purchased	*$.26*
Cost per pound of edible portion (without gravy)	*$.485*

COLD BOILED BRISKET, *A LA VINAIGRETTE*

Macerate three or four pounds of brisket over night in half water and half vinegar with a teaspoonful of pepper corn, six whole cloves, one sliced carrot, one sliced onion and a sprig, each, of parsley and celery. Next morning drain the beef and sear with drippings over a hot fire. When well browned sprinkle with flour. Strain the water and vinegar over it and let cook slowly an hour and a half.

While the brisket is still hot, put into a small bread baking pan and press with a weight. Set in a cold place, and the next day slice for lunch. Serve with the following sauce:

One onion chopped very fine, two chopped hard-boiled eggs, one teaspoonful of chopped parsley and one of chopped green celery; add three-fourths of a cup of vinegar and one-fourth of a cup of olive oil beaten together and seasoned to taste.

BRISKET

Brisket	No. 1	No. 2
Weight as purchased	1721.4 gms.	2099.6 gms.
Weight of trimmings non-utilizable	102.4 gms.	151.4 gms.
Percentage loss by trimming non-utilizable	5.9%	7.2%
Weight of trimmings, utilizable	500.2 gms.	584.2 gms.
Percentage loss by trimmings, utilizable	29.1%	27.8%
Loss in weight by cooking, by evaporation, and by fat and juices left in kettle	625.3 gms.	673.8 gms.
Percentage loss by cooking	36.3%	32.09%
Weight of cooked meat, as served, all edible	493.5 gms.	690.2 gms.
Percentage of meat edible	28.6%	32.8%
Cost per pound as purchased	$.15	$.15
Cost of brisket, as purchased	$.569	$.694

Cost of gas for cooking:		
Full burner, heating water and vinegar	15 min.	15 min.
Full burner, for searing meat	15 min.	15 min.
Total, full burner	30 min.	30 min.
No. of cu. ft. at 15 cu. ft. per hour	7.5 cu. ft.	7.5 cu. ft.
Simmering burner	3.5 hrs.	4.5 hrs.
No. cu. ft. at 6 cu. ft. per hour	21 cu. ft.	27 cu. ft.
Total amount gas used	28.5 cu. ft.	34.5 cu. ft.
Cost of gas at $.80 per thousand cu. ft.	$.0228	$.0276

Cost of mascerating brisket, same for both:		
Vinegar (4 2-3 cups) at $.09 qt	$.105	
Peppercorns (1 tsp.)	.003	
Cloves (6)	.001	
Onion (1)	.01	
Carrot (1)	.016	
Celery and parsley, 1 sprig each	.002	
	$.137	
Cost of searing brisket, 3 tablespoons drippings.	.015	

Total cost of cooked brisket:	No. 1	No. 2
Cost of brisket purchased	$.569	$.694
Cost of gas for cooking	.0228	.0276
Cost of macerating before cooking	.137	.137
Cost of drippings for searing	.015	.015
Total	.7438	.873
Using above factors, cost per pound of cooked meat	.683	.574

Cost of sauce to be served to make meat more palatable:		
Onion (1)	$.01	
Eggs (2)	.08	
Vinegar (3-4 cup)	.0169	
Olive oil (1-4 cup)	.05	
Parsley and celery	.005	
Total cost	$.1619	
Weight of sauce	353.7 gms.	
Weight of vinegar, fat and meat juices in kettle after cooking brisket	783.2	975.4

SUMMARY

Cost of cooked brisket	*$.743*	*$.8739*
Cost of sauce to be served with it	*$.1619*	*$.1619*
Total cost of served brisket	*$.9057*	*$1.0358*
Amount of finished product:		
Cooked brisket, weight	*493.5 gms.*	*690.2 gms.*
Vinaigrette sauce	*353.7 gms.*	*353.7 gms.*
Fat and juices in kettle, (mixed with water and vinegar)	*783.2 gms.*	*975.4 gms.*

In considering figures for the stuffed heart it should be observed that the cost of 22 cents per pound includes the stuffing as well as the heart itself. The proportions of meat and bread stuffing in any serving depend very largely upon the part of the heart from which the serving is cut. If we consider the cost of the meat alone, omitting the stuffing, the cost per pound will obviously be much higher. The nutritive value of such a dish is from meat and bread, and not from meat alone, as in steaks or chops.

STUFFED HEART*

Wash the heart thoroughly inside and out, stuff with the following mixture, and sew up the opening: One cup broken bread dipped in fat and browned in the oven, one chopped onion, and salt and pepper to taste.

Cover the heart with water and simmer until tender or boil ten minutes and set in the fireless cooker for six or eight hours. Remove from the water about one-half hour before serving. Dredge with flour, pepper and salt, or sprinkle with crumbs and bake until brown.

Weight as purchased		1930.
Weight of trimmings non-utilizable		138.8
Percentage of original weight of heart discarded in trimming		7.1%
Weight of heart ready to cook		1791.2
Weight of dressing added:		
Butter (4 tablespoons)	56.7 gms.	
Bread (2 slices)	42.8 gms.	
Onion	59. gms.	
Salt and pepper	5.7 gms.	
Total weight of dressing	164.2 gms.	164.2
Weight of heart and stuffing, before boiling		1955.4
Weight of flour used to dredge heart after boiling, before baking		28.32
Weight of heart, and stuffing and flour added in cooking		1983.72
Weight of cooked heart		1116.3
Total loss in cooking, from evaporation, and from juices and fat in kettle and pan		867.42
Percentage of heart, ready to cook, lost in cooking		43.7%
Percentage of heart, ready to cook, which was eaten after cooking		56.2%
Weight of juice and water in kettle		872.
Weight of flour added		21.24
Weight of gravy before cooking		893.24
Loss in cooking		165.24
Loss in straining		99.
Weight of edible portion of gravy		629.

* This recipe is from Farmers' Bulletin 391, "Economical Use of Meat in the Home."

	Costs	
Cost of gas:		
Total amount of gas used	41 cu. ft.	
Cost at $.80 per thousand cu. ft.	$.0328	
Cost of stuffing:		
Butter	$.031	
Bread	.007	
Onion	.01	
Salt and pepper	.004	
Total cost of stuffing	$.052	$.052
Cost of heart at 11 cents per pound		$.468
Cost of flour for dredging and gravy		.0043
Total cost		$.5571

The housewife finds she has ready to serve 1116.3 gms. of heart and stuffing and 629 gms. of gravy. Using the above total cost, $.5571 for 1116.3 gms. of meat and stuffing, the cost per pound of the stuffed heart as served, without gravy, is $.226.

Summary

The figures for the actual cost per pound are almost incredible. Of course the housewife knows that there is only a small portion of a frenched lamb chop actually eaten, but has she ever figured out that this small portion is one-fifth or less of the meat she purchased, and that the price is thereby raised to somewhere between $1.08 and $1.64 per pound. "Let us have a few chops for lunch," seems an easy way out of a culinary difficulty and indicates a popular supposition that chops are cheaper than steaks. One will hesitate before buying a porterhouse, but will quite casually plan a meal with lamb chops. Yet in reality the porterhouse costs but little more than half as much as the frenched chops, and is less expensive than many of the rib chops served. Of the four kinds of lamb chops, the frenched rib, the rib, the loin, and the shoulder, the frenched are the most expensive and the shoulder the cheapest, though not very much cheaper than the loin.

After all, the tables show that the cost is more largely a matter of "waste" than of the original amount paid the butcher. This question of "waste" is one of the big problems of cookery to-day. There are two kinds of "waste"—the utilizable and the non-utilizable, and the housewife must learn to distinguish

between them. One woman was buying meat for dinner. She insisted upon kidney chops, paying an extra price for this particular cut and then asked the butcher to trim off the kidney, leaving it at the shop as "waste." "That's my Sunday morning breakfast," the butcher explained to another customer. "I get a great many choice bits, trimmed off and left behind by some woman who does not know what she is buying." Of course this is a flagrant example, but how many women have the courage to insist upon the trimmings which they have paid for when buying meat? And how many have the time and knowledge to utilize them if they take them home?

Is the interest of the housewife in the reduction of the high cost of living merely hysterial, or is it serious enough to involve a study of how she, individually, may help to solve the problem in her own home? Is she sufficiently sincere to be willing to sacrifice some of the accepted social usages? If a lamb chop were trimmed before being served, so that the bone and other portions discarded at the table might be utilized in stock or in stews, the chop would lose its "identity," but there would be a material saving. Is the time coming when a woman cannot afford to miss any opportunity to save—even if it calls for some sacrifice "of conventionalities"?

SUPPLEMENTING THE HILLEGAS SCALE

By M. R. TRABUE

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During the spring session of last year (1916), some of the advanced students in the department of educational administration at Teachers College were engaged in an educational survey of Nassau County, Long Island. In the course of this survey the educational achievements of public school pupils were measured by means of standard educational scales and tests. The measurements of the quality of English compositions written in Nassau County suggested very strongly the need for two supplements to the Hillegas Scale.[1] In the first place, there seemed to be a distinct need for a supplementary scale composed of compositions of the same general type as those written by Nassau County pupils, and, in the second place, it appeared desirable to set up some tentative standards indicating the quality of English compositions to be expected from the pupils of any given school grade. The discussion which follows is a report of certain efforts to supply these two supplements to the Hillegas Scale.

In spite of all the criticisms of and objections to the Hillegas Scale, the fact remains that it is one of the most useful measuring instruments in the whole field of education. The objective character of the scale has been extremely useful. By means of this scale it is now possible for one person to understand and to identify the quality of written English indicated by another person. Intelligent use of the Hillegas Scale by teachers and supervisors tends to place emphasis on the quality of the written composition rather than upon the personal relations of the writer and the teacher. Any

[1] Hillegas, M. B., A Scale for the Measurement of Quality in English Composition. Published by the Bureau of Publications, Teachers College, New York City.

supervisor who employs the scale with a group of his English teachers, and who then takes the trouble to discuss with such teachers in the light of this experience just what constitutes general merit in English composition writing, will be able to show as a result a much greater agreement of opinions and of school marks in this subject. In other words, the use of the Hillegas Scale calls attention to and defines fairly well what we mean by general merit in English composition.

One of the defects which is quite frequently pointed out by those who object to the Hillegas Scale is the fact that the first three samples of this scale are not the compositions of children, but are artificially constructed samples. To some of the other samples the objection is made that they are so short as to afford very little evidence of their true quality. As an example, we may point out Sample 534, which represents Quality 5.85 on the scale.

Fluellen

The passages given show the following characteristic of Fluellen: his inclination to brag, his professed knowledge of History, his complaining character, his great patriotism, pride of his leader, admired honesty, revengeful, love of fun and punishment of those who deserve it.

This confused sentence is hardly sufficient to give one a definite impression as to its quality. Objection has also been made to the fact that the compositions appearing on the scale are not all of the same type. Some teachers claim that they find it difficult to compare the quality of two such compositions as the one shown above and the one which follows it in the Hillegas Scale (Sample 196, Quality 6.75).

Ichabod Crane

Ichabod Crane was a schoolmaster in a place called Sleepy Hollow. He was tall and slim with broad shoulders, long arms that dangled far below his coat sleeves. His feet looked as if they might easily have been used for shovels. His nose was long and his entire frame was most loosely hung to-gether.

Some slight additional criticism has been based upon the inequality of the intervals between the values of samples on the scale. The interval between the values of the first and second samples is, for example, 1.83 units, while the interval between

the second and third samples is only .77 of a unit, and the interval between the eighth and ninth samples is only .66 of a unit.

Many of the objections made to the Hillegas Scale are of very little consequence other than that they offer excuses for not making use of the scale. It is nevertheless worth while to at-

NASSAU COUNTY SUPPLEMENT TO THE HILLEGAS SCALE FOR MEASURING THE QUALITY OF ENGLISH COMPOSITIONS

Directions for measuring: Compare the quality of your composition with the quality of the samples on the scale. Assign to your composition the numerical value of that evaluated sample which most nearly equals it in merit.

0. .004	What I should like to do next Saturday I went going on to the Dox Saturdaye dnd day we the boys and I well going home and I well going the boys. and I will going these read in and they to night. and we or night. I well going a ground shalt and I gone out I will going to shea shouse and I will shoe or the skill of the shea of night.
1.1 1.06	I intend to mak a snou man and make an fort and fort snou ball at chidern and hau I whist ma frant carolyn cole what were me I will going to the mauiss on Saturday. Georga will come went me. at night I will going out went my mother to the marce I will mak the snou man and the fort in the moning and in the aftermoon I will go to the mauies. I whist there whest school on Saturday
1.9 1.93	one next S aturday I expect to go to the city leve next G aturday to see my ofriend archie king I am going to grow to the baning balys circus with hime next S aturday fefore I go I have to do my jobs feedsing the cows ard horse ard chinkens and geese next Saturday My friend is a very good fellow to go and see So my mother S aid "If I do my work during Easter week vacation I can go to the barning baley circus with. hime
2.8 2.81	Once a pon a time there was a girl. One day she asked me what I was going to do next Saterday so I said, "I am going to go for a swim." And she said, "thats just where I am going to." next Saterday came we both went down together. We came home at noon time. after dinner we went to the picktures. There we had a good time. And then came home at night.
3.8 3.84	I would like to go out in the after noon and play catching the ball. Go over to Bertha's house and have a few girls to come with me and be on each others side. I have a tennis ball too play with. The game is that one person should stand quite aways from another person and throw the ball too one then another. Someone has to be in the middle and try too get the ball a way from someone then she takes this persons place who she caught the ball from. Then till every person has a chance.

5.0 4.97	Next Saturday I should like to go away and have a good time on a farm. I should like to watch the men plowing the fields and planting corn, wheat, and oats and other things planted on farms. Next Saturday I will go to the Pioneer meeting if nothing happens so that I cannot go. I should like to go swimming but it is not warm enough and I would catch a bad cold. I should like to go to my aunts and drive the horses, I do not drive without some older person with me, so I cannot go very often. I should like to see my aunts cat and her kittens, too. I think I can, to.
6.0 6.01	I should like to join my girl friends, who are going to the city on the 9:05 A. M. train. They are going shopping in the morning and will have lunch to-gether, then they are going to the Hippodrome. After the Hippodrome, they are all going home to dinner to one of the girls houses, she lives on Riverside Drive so they expect to take the "Fifth Avenue Bus" up there. The evening will be devoted to playing games, singing and dancing.
7.2 7.22	If I had a thousand dollars to spend, I think I would take a trip to San Francisco by train with the rest of the family, and stop at a sea-side hotel. It would be glorious to see the surf again, and to escape from the cold blustering weather of December for the balmy breezes of the ocean, and the whiff of orange blossoms. We could take long drives under shady trees, visit the orange and olive groves and bathe in the surf. Think of bathing in the ocean in December! Coming home again I should enjoy stopping at Yellow Stone Park. It would be lots of fun to camp out, and to ride over the prairies on frisky ponies. It would be very interesting to notice the change of climate as we got farther east, and to go to bed on the train one evening feeling warm, and waking up the next morning feeling very chilly. I am afraid by the time I would get home a thousand dollars would be pretty well used up; but if not I would like to give a party.
8.0 8.00	One Sunday, towards the end of my summer vacation, I was in bathing at the Parkway Baths. In the Brighton Beach Motordrome, a few rods away, an aviation meet was going on. Several times one of the droning machines had gone whirring by over our heads, so that when the buzzing exhaust of a flier was heard it did not cause very much comment. Soon, however, the white planes of "Tom" Sopwith's Wright machine were seen glimmering above the grandstand. Everyone stood spellbound as he circled the track several times and then headed out to sea. He was seen to have a passenger with him. Suddenly, the regular hum of his motor was broken by severe pops, and the engine ran slower, missing fire badly. In response, to Sopwith's movements, the big flier tilted and swooped down to the beach from aloft like an eagle. The te rified crowd made a rush to get out of the way as the airship came on, but Sopwith could not land on the beach, but skimmed along close to the water instead. Suddenly his wing caught the water, and the big machine somersaulted and sank beneath the waves. The aviators soon came bobbing up and were taken away in a launch, but the accident will not soon be forgotten by those who saw it.

9.0	The courage of the panting fugitive was not gone; she was game to the tip of her high-bred ears; but the fearful pace at which she had just been going told on her. Her legs trembled, and her heart beat like a trip-hammer. She slowed her speed perforce, but still fled industriously up the right bank of the stream. When she had gone a couple of miles and the dogs were evidently gaining again, she crossed the broad, deep brook, climbed the steep left bank, and fled on in the direction of the Mt. Marcy trail. The fording of the river threw the hounds off for a time; she knew by their uncertain yelping, up and down the opposite bank, that she had a little respite; she used it, however, to push on until the baying was faint in her ears, and then she dropped exhausted upon the ground.

NOTE.—The first seven of the above compositions, values 0 to 6.0, were written during the month of April, 1916, by children in the elementary grades of the schools in Nassau County, New York. The last three compositions, values 7.2, 8.0 and 9.0, were selected from compositions which have previously been published by Professor E. L. Thorndike.[1]

The value assigned to "The Hunted Deer" (9.0) is that given it in the Thorndike Extension of the Hillegas Scale.[2] The value assigned to each of the other compositions, values 0 to 8.0, is in each case the median rating of 139 judges who employed as the basis of their ratings the Hillegas Scale for English Composition by Young People.[3]

The unit of quality is the median deviation from the median judgment of the group of 202 judges used by Dr. Hillegas in securing the final values of the compositions appearing on the Hillegas Scale. In less technical terms, the unit of quality is such a difference in quality as was recognized by exactly 75% of the original judges and not recognized by the other 25%. For general purposes the bold faced values are accurate enough, although more exact values are given in small type.[4]

tempt to eliminate in so far as possible some of these real or imaginary objections to our educational scales. The supplement to the Hillegas Scale which is here presented does not eliminate all of the objections, but it does reduce some of them to such an extent that one may at least hope to find an increasing number of composition teachers making use of objective measurement.

[1] English Composition—150 Specimens Arranged for Use in Psychological and Educational Experiments by Edward L. Thorndike. 65 cents.

[2] Thorndike Extension of the Hillegas Scale for Measuring the Quality of English Composition. Price, 8 cents per copy by mail; 5 cents in quantities, postage extra.

[3] Scale for the Measurement of Quality in English Composition by Young People, by Milo B. Hillegas. Scale and monograph, 35 cents. Scale, 3 cents.

[4] Copies of the above Supplement, in a form convenient for use, may be purchased in any desired quantity. Price, 8 cents per copy by mail; 5 cents in quantities, postage extra. Published by Bureau of Publications, Teachers College, New York City.

This supplement may be found somewhat less objectionable than the Hillegas Scale inasmuch as the objections mentioned above are not so applicable to the supplement as to the scale itself. It contains no artificial samples. Each sample on the supplementary scale is as true a representation as can be made on the printed page of a child's written composition.[1] Each of the samples appearing in the supplement is sufficiently long that one may readily obtain a real appreciation of its quality. Each of the compositions tends to be of the same general narrative type, which fact gives one a simple basis for the recognition of improvement in quality as one passes upward from quality 0 to quality 9. The first seven compositions are upon the same topic, "What I Should Like to do Next Saturday," which is closely related to the type of composition one would use in writing letters. This is an added advantage, since letter writing is no doubt the form of composition for which public school pupils will have the greatest use in their lives outside the class room. The intervals between the values of the samples in the supplement are slightly less unequal to each other than are the intervals found in the original Hillegas Scale itself. The relative intervals on the two forms of the scale are represented graphically in Fig. 1.

In preparing the above supplement, the writer made use of compositions written by the public school pupils in Nassau County, New York. Each composition in a group of fifty-five hundred written by these pupils had been rated and assigned a value[2] on the Hillegas Scale by at least two trained judges, and in case the first two independent ratings differed, a third judgment had been made by still another judge. From this mass of roughly evaluated compositions, twenty-eight samples were selected upon the values of which the first two judges had agreed. In addition to the requirement that his own judgment and that of the first two judges should agree as to the quality of the compositions chosen, the writer also made it a rule not to take more than four compositions rated on the same sample of the Hillegas Scale. The purpose of this rule was, of

[1] The sample valued at 9.00, it should be noted, is the only sample not written by a school child.

[2] In these first ratings no effort was made to assign values intermediate to those appearing on the Hillegas Scale.

course, to make sure that there would be in the list two or three samples of each quality on the scale. In order to meet this requirement for the upper end of the list, two compositions published and partially evaluated by Professor E. L. Thorndike were included in the list of thirty samples finally selected for the experiment.

Each of the thirty compositions was carefully mimeographed, being identified merely by the first letters of the name of the child who had written the composition.[1] About one hundred sets of the thirty compositions were prepared, each set being enclosed in an envelope to facilitate the administration of the experiment. A sheet of directions was also prepared and mimeographed, asking that the compositions be arranged first of all in the order of their merit and then rated carefully on the Hillegas Scale. A sample sheet of directions, as it was finally filled out[2] and returned to the writer, is shown on page 62.

One hundred and thirty-nine different judges were used in securing the final ratings given each of the thirty samples. These judges were all college graduates who had had experience in teaching and administrative or supervisory school work, and were at the time of making these judgments members of classes in educational administration at Teachers College. One group of 65 judges were members of the advanced or practicum class studying intensively the problems of educational measurement during the summer session of 1916, while the other group of 74 judges were members of a similar group during the winter session of 1916-17. There is no reason to believe that one of these groups was by nature any less intelligent or any less able to distinguish merit in English composition than the other.

The first group of 65 judges were assigned the task of rating the thirty mimeographed compositions immediately following four hours of special class work, two hours one day and two hours the next, in which the derivation of the Hillegas Scale had been discussed and three or four sets of composition papers had each been rated two or three times on the Hillegas Scale.

[1] Identifying letters were "made up" for the two samples borrowed from Thorndike.

[2] The judgments recorded on this sample sheet are copied in the first horizontal line of Original Record Sheet No. 2.

ORIGINAL RECORD SHEET No. 1

HILLEGAS SCALE VALUES ASSIGNED TO COMPOSITION

He Si	*Re Si*	*Ad Ja*	*Lu Rh*	*Eu Sw*	*Mi Su*	*Th Be*	*Ch Fr*	*Ch Co*	*Ch Dr*	*Lo Co*	*Jo Dr*	*Co O'T*	*Je Mi*	*Ch Wi*	*Ri Be*	*Ca Pe*	*Ro McN*	*Gr Mi*	*Ma Ro*	*Qu Fr*	*Ha Da*	*Pa Mu*	*Le O'B*	*Le Bo*	*Ma*	*Jo Si*	*Ro R*	*Fr Ko*	*Ru Do*
78	77	67	58	59	47	36	40	34	38	27	28	31	29	33	25	32	30	15	26	18	17	19	16	13	0	14	2	3	1
94	84	67	66	58	77	57	35	47	56	36	55	65	37	46	26	34	45	43	44	25	17	18	24	16	15	10	3	5	0
90	84	74	81	73	67	58	65	60	44	57	30	36	31	47	38	37	26	41	23	22	45	21	32	20	19	18	15	1	0
72	75	73	74	54	65	56	52	49	43	47	58	45	42	35	44	40	41	32	38	26	28	24	25	22	18	12	15	5	0
66	77	72	84	71	70	68	67	62	64	58	57	56	50	47	55	44	52	40	45	38	37	30	33	26	18	15	5	10	0
76	77	70	67	61	60	57	58	59	56	55	50	46	54	47	44	45	49	48	36	26	18	19	37	17	16	10	12	0	5
84	78	65	64	67	62	60	63	61	55	57	42	58	54	50	56	59	47	35	52	37	30	40	45	18	12	15	10	7	0
97	77	69	67	65	84	59	58	46	45	35	48	57	47	27	36	37	10	26	17	18	25	19	8	5	4	3	2	1	0
84	74	77	80	71	67	65	47	55	62	58	60	50	54	37	38	26	31	30	28	25	20	23	17	18	15	12	10	16	0
74	75	70	69	67	71	50	59	58	31	56	37	34	47	36	45	35	26	39	27	38	20	40	19	21	17	12	15	9	0
84	85	76	83	77	78	68	59	67	57	47	66	58	48	46	60	50	49	45	26	18	36	19	25	17	9	7	3	5	0
68	78	69	77	76	67	65	66	58	57	56	48	59	36	47	44	45	46	37	35	26	24	27	25	19	18	16	17	15	0
52	80	72	75	70	65	39	55	47	48	32	18	22	25	20	15	13	35	12	10	5	8	7	30	4	2	6	1	3	0
63	77	58	67	72	55	61	60	58	53	51	52	49	39	42	48	34	47	26	22	36	18	20	10	12	1	9	4	2	-5
77	75	67	58	72	70	47	40	42	19	45	22	25	26	30	32	37	20	16	18	17	12	15	14	13	9	11	5	10	0
83	80	84	56	75	65	45	49	48	42	37	40	39	47	32	43	44	41	31	30	35	36	34	19	26	21	20	18,	17	10
79	75	74	72	70	69	65	57	60	68	43	49	52	40	26	20	36	34	30	17	15	7	12	32	10	3	1	2	4	0
87	85	67	74	77	50	60	70	47	40	37	25	42	30	24	23	34	19	26	18	17	20	15	16	14	13	12	1	10	-5
77	69	67	66	59	68	50	58	52	48	47	40	44	46	42	36	38	37	35	26	33	34	32	19	31	22	18	20	5	0
78	77	68	76	66	67	59	48	58	34	42	47	31	26	32	40	38	36	17	15	18	8	12	5	10	3	4	1	2	0
94	84	77	68	78	76	47	67	57	60	58	61	46	48	59	25	37	31	30	28,	27	23	24	26	22	10	20	6	18	0
68	80	79	54	77	52	42	58	47	49	44	28	36	34	26	31	32	27	23	20	24	22	21	29	18	13	10	16	3	0
71	67	70	59	65	60	48	55	49	46	47	45	52	41	42	44	40	43	39	38	37	36	35	31	30	18	19	17	5	0
76	90	83	84	80	81	78	55	51	58	49	53	43	47	40	50	45	31	37	19	25	35	22	20	25	15	10	3	5	0
82	84	77	74	76	75	66	67	59	65	49	58	60	55	47	50	36	25	37	48	20	23	18	15	19	10	4	5	2	0
75	84	72	69	80	78	67	66	68	62	53	51	52	47	50	55	59	48	45	37	30	34	40	38	24	19	17	9	15	0
90	82	67	63	55	75	48	49	47	46	45	36	40	43	38	30	42	37	20	41	23	25	15	27	3	10	0	5	-3	-8
77	75	70	67	65	72	47	55	60	39	50	38	45	42	40	37	33	35	36	28	27	20	22	26	19	17	14	18	13	15
82	83	80	76	68	72	47	55	50	44	43	37	40	35	36	39	38	34	33	31	30	32	26	29	22	14	18	9	4	0
91	90	69	77	70	67	83	58	68	42	51	52	47	37	48	43	36	31	30	26	23	32	18	27	22	11	19	10	12	6

93	78	83	67	77	66	58	60	49	57	40	56	46	59	36	47	37	38	35	34	25	48	27	26	20	12	18	10	15	0
93	77	68	58	59	67	47	48	46	50	57	49	45	51	56	42	44	38	39	37	35	43	36	34	26	15	18	17	19	0
83	75	76	78	77	68	67	58	59	60	56	45	57	49	47	50	48	46	38	36	34	33	37	35	26	25	27	18	24	0
75	68	73	74	72	65	60	70	64	47	54	42	37	62	52	43	53	35	38	50	26	28	30	27	20	5	15	6	12	0
82	83	81	80	77	75	74	76	68	66	69	70	64	67	65	71	60	63	62	47	56	50	54	55	36	30	22	26	18	0
66	75	70	74	67	73	56	35	48	52	47	55	45	36	50	30	34	32	33	22	26	27	18	20	10	5	3	2	0	−5
83	80	75	69	68	70	63	64	58	67	50	54	60	48	36	47	40	46	42	28	27	35	30	20	26	18	5	10	4	8
82	69	72	70	60	71	50	57	52	55	47	40	27	26	30	35	24	23	28	25	22	21	10	20	18	5	6	2	7	1
72	93	91	85	83	77	64	58	47	42	67	49	30	46	33	51	28	36	22	23	26	18	24	14	19	7	9	10	4	1
78	92	91	80	81	79	58	73	60	63	55	52	40	31	26	59	47	27	20	25	23	18	19	15	32	13	2	8	5	0
58	77	68	66	47	67	57	59	38	27	35	37	39	36	20	48	25	26	19	28	14	15	21	17	18	12	5	13	16	0
56	58	93	67	49	50	48	47	42	37	36	40	41	28	35	30	38	27	25	26	18	19	15	13	14	2	10	1	5	0
77	66	67	65	68	58	45	55	69	47	26	50	38	36	28	30	35	37	33	40	31	19	20	18	29	4	5	2	10	0
89	91	81	83	80	77	66	57	46	35	36	39	34	38	37	45	32	33	18	31	30	27	29	28	16	5	17	1	2	0
93	80	83	77	82	72	57	62	67	58	42	47	52	36	41	43	35	37	26	31	18	22	19	20	17	10	14	6	4	0
72	75	65	64	70	67	52	43	61	48	38	32	46	41	21	55	36	29	26	16	12	24	18	14	10	4	6	8	2	0
83	90	85	74	75	80	70	67	55	50	68	45	60	52	54	61	42	40	48	34	30	46	27	35	25	16	20	10	21	5
92	83	80	79	75	84	69	64	67	60	65	68	66	58	63	57	59	56	45	36	31	26	30	21	20	18	17	19	15	0
45	70	77	67	50	65	41	46	42	39	40	36	37	38	35	34	32	33	31	29	30	27	28	25	26	19	11	10	18	0
85	83	81	78	80	75	69	73	58	65	50	54	61	37	44	35	48	46	40	31	28	16	20	24	7	2	10	3	4	0
90	89	83	87	82	88	76	78	62	71	68	75	66	56	47	59	73	65	52	38	28	43	33	25	18	3	22	2	5	0
83	80	72	70	47	77	67	41	46	36	58	65	37	26	40	38	19	27	18	22	15	6	7	10	5	4	2	3	1	0
93	70	75	67	65	69	55	58	52	54	50	47	64	35	48	49	46	36	32	29	34	30	33	20	31	14	28	24	15	0
80	79	77	75	70	72	58	67	57	56	40	46	54	37	25	20	34	26	19	18	15	6	11	30	10	3	1	2	4	0
79	92	87	83	77	80	71	69	55	58	62	75	67	47	37	65	50	40	43	32	38	26	35	25	29	20	18	5	10	0
47	51	49	46	45	58	43	41	37	42	36	38	39	35	33	32	40	34	27	26	22	30	18	19	8	4	3	2	15	0
83	77	78	61	76	60	43	50	42	35	40	41	34	39	38	37	26	36	33	19	20	16	21	18	14	5	12	9	3	0
52	75	65	68	62	76	63	72	59	61	53	60	43	55	50	39	34	30	48	45	28	26	35	29	27	21	24	5	18	3
80	60	67	90	72	77	59	63	49	50	57	58	56	47	34	38	40	46	26	20	19	17	15	13	18	3	5	10	1	0
60	77	65	67	62	68	58	51	52	38	41	55	54	49	45	39	50	40	37	34	30	33	32	36	31	20	18	0	17	16
88	79	84	82	72	75	63	67	62	45	56	69	61	57	37	49	64	40	30	35	24	18	25	16	11	3	8	4	2	1
95	75	68	72	67	76	39	47	55	45	42	43	38	36	40	37	34	35	33	30	28	23	25	24	18	16	5	8	12	0
83	80	73	75	72	77	71	68	67	66	69	62	70	65	54	37	32	58	29	40	26	35	22	47	24	19	9	17	18	0
83	77	67	80	82	72	62	55	58	56	52	47	57	54	46	48	42	50	36	37	44	35	30	45	26	20	18	15	7	0
91	92	85	81	79	77	66	70	58	67	60	68	49	44	50	40	63	47	45	37	39	42	27	38	24	12	19	9	17	0

NOTE.—The original ratings of each judge on each composition are given here for the benefit of those who may wish to make further studies of the problems arising in this discussion. Reading the table from left to right across the top the legend is as follows: the first judge rated *He Si* at 78, *Re St* at 77, *Ad Ja* at 67, *Lu Rk* at 58, *Eu Sw* at 59, and so on across the page. Each horizontal line gives the ratings of the same individual or judge on each of the thirty compositions.

ORIGINAL RECORD SHEET No. 2

HILLEGAS SCALE VALUES ASSIGNED TO COMPOSITION

He Si	Re St	Ad Ja	Lu Rh	Eu Sw	Mi Su	Th Be	Ch Fr	Ch Co	Ch Dr	Lo Co	Jo Dr	Co O'T	Je Mi	Ch Wi	Ri Be	Ca Pe	Ro McN	Gr Mi	Ma Ro	Qu Fr	Ha Da	Pa Mu	Le O'B	Le Bo	Ma	Jo Si	Ro R	Fr Ko	Ru Do
79	83	80	75	78	60	47	48	50	45	49	53	46	44	42	38	35	25	30	21	23	24	17	14	16	20	19	18	13	0
85	78	83	73	75	77	52	68	64	58	55	57	49	56	38	42	39	25	34	22	36	24	30	32	18	0	-1..5	-2	-1	-2..5
90	80	70	78	73	75	55	60	54	33	58	58	36	34	43	50	27	35	32	42	26	28	40	23	24	30	25	21	15	20	10
92	90	94	93	91	78	70	80	79	82	50	65	64	48	40	42	39	47	45	26	38	35	30	18	15	0	25	2	5	-1
59	65	75	70	67	62	53	49	47	46	52	43	45	40	50	38	44	41	34	20	28	33	23	30	8	10	18	6	15	0
76	80	74	78	71	70	68	40	64	62	44	58	65	50	41	60	26	24	37	29	35	15	36	28	20	10	5	6	1	0
70	88	84	82	78	76	68	65	52	59	50	58	54	41	45	48	49	40	38	30	34	19	35	36	26	11	9	4	16	0
83	70	80	67	77	72	55	58	35	41	50	34	45	47	36	37	40	33	31	27	28	26	22	18	30	10	20	8	0	-5
87	75	92	83	91	85	77	90	70	67	47	71	58	36	50	65	45	70	34	38	40	15	30	42	26	0	20	-5	5	-10
72	93	90	84	80	82	60	65	48	39	52	46	38	42	44	47	35	27	41	22	16	20	30	25	10	5	6	7	1	0
77	84	71	79	76	78	50	55	47	35	37	51	43	40	38	36	33	46	20	63	42	2	32	44	13	3	0	1	-1	-2
83	78	80	70	75	57	65	55	58	38	47	51	49	44	42	36	40	53	34	20	26	22	32	29	24	18	12	6	15	0
88	82	81	78	84	79	68	67	64	50	60	66	65	63	55	61	40	62	38	30	36	22	35	52	20	10	5	12	15	0
100	73	75	85	80	74	69	67	62	50	39	38	48	34	33	40	45	35	23	26	24	29	25	16	19	12	3	1	8	5
65	75	70	73	72	69	59	68	64	60	46	58	57	45	50	49	51	47	30	19	27	40	48	26	25	20	15	5	12	0
77	81	82	83	78	79	68	73	48	71	53	41	46	35	45	37	55	39	34	21	19	33	20	29	12	17	15	18	11	0
85	83	76	73	70	72	62	58	50	48	40	42	45	39	33	37	38	21	35	18	32	28	15	22	12	3	6	0	10	-1
85	80	81	77	76	75	66	64	60	58	47	57	54	48	56	38	50	49	42	39	37	40	36	46	32	22	25	6	20	0
90	87	92	91	83	84	73	80	79	72	69	78	68	63	52	67	60	64	66	55	50	43	53	40	54	20	39	28	42	14
69	79	76	80	71	55	56	59	50	52	41	43	42	45	47	39	46	38	17	28	32	37	35	23	20	-2	10	5	13	-5
65	95	80	83	77	70	67	60	62	30	66	58	45	46	47	28	23	39	24	16	21	22	19	17	18	15	12	20	10	0
88	86	87	84	85	83	67	78	69	68	57	64	66	66.5	65	60	64..5	58	56	48	40	35	39	47	30	20	22	17	19	18
82	90	74	75	81	88	65	45	40	37	58	49	60	48	38	17	50	35	18	15	20	16	10	14	3	5	8	0	4	-1
81	84	87	88	85	76	69	72	68	73	53	58	62	35	49	44	46	38	36	20	32	41	34	16	25	11	8	14	0	-4
83	85	78	82	76	73	67	50	60	46	42	49	52	47	45	40	34	33	26	32	36	17	27	19	25	20	15	21	0	-10
71	93	83	80	77	85	62	70	55	67	60	66	65	47	50	30	58	27	36	24	26	34	18	12	17	11	8	15	10	0
74	90	80	70	82	68	60	64	62	57	54	46	51	50	48	41	45	40	37	35	26	28	32	31	20	16	10	15	4	0
95	85	70	67	62	75	58	50	29	33	47	42	52	34	26	35	31	28	24	12	15	10	23	22	20	3	5	1	2	0
85	90	80	78	75	72	70	63	65	29	44	39	23	43	40	45	18	30	33	12	16	20	9	8	6	3	1	4	2	0
75	45	76	55	80	47	33	35	31	36	40	27	30	24	26	18	34	22	29	17	12	20	28	10	32	0	-2	-4	9	-5
65	90	83	64	70	85	62	84	61	47	52	44	60	51	43	63	46	58	26	45	16	37	14	4	9	8	10	18	2	0
74	92	88	85	80	91	87	70	72	52	78	69	68	77	63	58	53	50	26	40	47	24	64	38	20	17	2	15	8	0
55	46	59	56	58	47	45	48	49	51	43	39	50	27	40	21	41	29	19	4	38	28	37	32	25	10	6	11	7	12
60	62	64	61	65	63	48	33	31	30	50	38	37	28	25	18	19	27	20	40	17	10	9	16	11	7	4	0	1	2
79	66	76	75	77	67	57	60	62	69	51	47	65	54	46	33	34	32	24	44	36	21	30	25	16	3	10	0	14	1
67	84	82	83	80	77	70	44	55	58	42	45	47	41	38	37	43	39	35	19	34	26	27	25	12	10	11	1	6	0
50	70	65	68	60	47	39	46	38	42	26	31	35	30	32	34	25	36	23	24	27	22	28	16	20	15	14	6	10	0
80	93	82	79	75	76	61	63	59	58	51	55	57	48	53	46	50	36	45	30	21	16	38	43	14	12	8	3	2	-15
74	71	77	67	76	75	43	50	48	45	42	35	47	40	39	16	16	30	25	8	22	20	12	14	10	9	5	22	1	0
63	65	61	67	60	64	50	56	37	43	53	41	45	36	39	38	26	35	33	30	24	28	20	18	10	15	.5	.6	.6	0

ORIGINAL RECORD SHEET No. 3

HILLEGAS SCALE VALUES ASSIGNED TO COMPOSITION

He Si	*Re Si*	*Ad Ja*	*Lu Rh*	*Eu Su*	*Mi Su*	*Th Be*	*Ch Fr*	*Ch Co*	*Ch Dr*	*Lo Co*	*Jo Dr*	*Co O'T*	*Je Mi*	*Ch Wi*	*Ri Be*	*Ca Pe*	*Ro McN*	*Gr Mi*	*Ma Ro*	*Qu Fr*	*Ha Da*	*Pa Mu*	*Le O'B*	*Le Bo*	*Ma*	*Jo Si*	*Ro R*	*Fr Ko*	*Ru Do*
92	74	72	68	65	69	57	66	53	41	59	50	48	46	43	40	38	36	34	37	27	28	25	39	20	8	10	11	2	-3
95	90	84	80	67	77	50	58	65	42	48	36	47	26	23	49	40	34	22	20	19	12	21	18	15	0	5	-2	2	-5
72	78	80	77	75	70	64	63	59	46	65	50	42	29	35	58	30	36	25	18	17	20	19	12	9	4	-2	2	5	-10
80	78	79	77	75	76	74	70	67	68	67	57	69	66	50	62	61	53	35	47	60	22	52	45	30	20	9	18	15	0
71	77	66	64	63	70	61	69	61	65	62	51	50	54	52	53	48	41	46	33	40	45	38	28	32	25	18	30	15	4
58	82	81	80	50	78	60	54	48	43	47	57	44	45	55	46	38	40	42	39	41	15	37	36	35	18	2	3	5	0
65	80	77	69	84	78	70	62	66	54	42	64	58	49	44	35	59	27	41	45	40	28	36	25	19	14	15	21	20	0
78	85	75	68	65	80	60	56	49	58	50	48	53	51	41	52	40	45	39	29	42	38	30	5	35	12	25	10	24	15
93	90	94	92	91	80	78	77	79	63	73	69	64	45	68	70	50	60	38	27	37	36	34	26	32	8	20	2	17	-3
69	75	59	68	55	71	47	33	43	29	42	46	40	37	34	32	30	39	27	22	28	24	25	23	20	17	14	18	15	-2
80	77	74	65	60	70	40	38	54	45	39	33	49	37	35	29	25	36	24	27	20	26	28	18	14	8	5	9	3	1
94	84	79	83	78	77	76	74	75	66	59	73	68	45	47	46	58	67	37	35	18	48	25	36	26	10	24	12	5	0
55	70	65	62	60	50	45	47	46	43	38	44	42	35	30	31	40	41	25	18	28	27	15	20	10	5	3	1	2	0
60	76	57	58	59	44	40	43	42	30	41	36	38	39	37	26	4	24	22	70	80	20	19	17	18	3	10	5	2	6
93	94	70	84	75	90	83	24	44	65	45	50	40	23	35	48	25	46	16	38	22	17	18	15	12	5	10	14	13	0
80	86	84	83	85	71	73	77	76	72	60	58	47	19	38	42	21	37	27	6	26	17	20	5	18	1	3	4	2	0
95	93	78	79	83	90	65	52	76	60	72	50	57	48	70	46	34	33	45	40	36	38	27	28	26	22	16	18	15	0
78	82	80	77	75	58	55	50	48	40	45	47	41	44	43	46	39	36	38	29	20	15	25	13	18	10	11	16	1	0
56	64	77	67	75	63	66	61	60	43	25	48	45	28	27	50	58	47	26	24	20	23	21	19	22	2	8	1	7	0
80	77	78	79	75	47	41	44	46	37	38	43	42	36	35	40	29	34	27	39	26	28	30	22	25	9	10	15	8	2
86	87	94	76	80	88	67	73	66	64	62	56	55	20	22	19	42	41	18	25	24	52	26	21	23	15	17	12	10	0
92	94	90	88	91	79	86	75	84	85	80	83	58	67	60	82	71	76	36	38	30	34	8	33	10	6	20	35	26	24
95	82	79	60	55	61	48	68	45	44	43	47	46	41	42	29	37	16	18	14	19	17	15	12	13	7	6	8	5	0
90	83	80	77	67	58	39	50	42	34	47	32	37	38	40	33	31	30	36	27	26	25	23	28	24	20	22	7	17	0
83	92	82	89	81	77	78	60	62	55	58	66	67	47	50	37	26	46	20	25	15	19	18	30	12	7	5	9	8	0
72	80	83	82	77	75	65	60	62	52	55	70	58	46	45	57	40	47	35	20	44	42	30	10	22	14	6	11	5	1
72	90	75	83	70	80	64	66	65	62	63	68	71	67	59	60	49	47	38	45	46	26	28	6	20	9	5	12	30	0
97	92	89	82	69	77	50	71	73	62	58	49	68	47	52	51	43	48	44	41	42	30	46	45	18	19	0	17	32	20
93	83	70	66	67	77	57	58	59	38	47	50	56	45	42	35	36	43	18	25	27	37	19	26	10	4	17	2	5	1
89	90	77	92	75	68	70	65	66	46	32	47	45	33	35	36	42	44	34	23	26	25	27	24	22	18	20	17	19	0
83	85	93	88	90	77	60	70	67	44	34	40	47	42	33	45	35	36	26	43	32	18	30	10	25	15	5	20	8	0
95	83	93	85	90	75	65	70	60	36	55	30	56	50	45	32	26	20	33	10	25	40	22	15	12	8	9	7	5	0
68	79	78	75	69	77	67	56	57	50	60	47	48	45	49	54	38	40	37	35	31	27	28	29	26	25	18	10	1	0
95	85	94	93	90	65	40	45	37	30	26	19	35	20	21	36	25	18	17	16	15		7	8	3	5	1	4	2	0

In connection with this rating of compositions in class, certain compositions had been read aloud to the class and a general discussion had been held, dealing not only with the merit of

DIRECTIONS

Do all of this work independently. Do not let your judgment be influenced by anyone or by anything other than the quality of the compositions themselves.

First:

Arrange the thirty compositions in the order of their merit, giving the best composition rank number 1, the next best rank number 2, and so on down to the poorest, which should receive rank number 30. Do not give any two compositions the same rank.

Record your judgment in the proper place on the blank below by writing neatly (or printing, if your writing is quality 9 or less) the identification letters of the composition opposite the rank number to which you have assigned it.

Second:

Determine as accurately as possible the position of each of the thirty compositions on the Hillegas Scale or on the Thorndike Extension of the Hillegas Scale.

You may assign values intermediate to those given on the scale if you feel reasonably sure of your judgment. (You may, for example, wish to assign a value of 05 to one composition, 10 to another, 15 to another, etc., even though there are no samples on the scale between 0 and 18.)

Record below the value you assign to each composition, and return your record and material to Mr. Trabue before consulting with anyone regarding your judgments.

Rank Number	Composition Lettered	Quality on Hillegas S.	Rank Number	Composition Lettered	Quality on Hillegas S.
1	*Re St*	*83*	16	*Ri Be*	*38*
2	*Aa Ja*	*80*	17	*Ca Pe*	*35*
3	*He Si*	*79*	18	*Gr Mi*	*30*
4	*Eu Sw.*	*78*	19	*Ro McN*	*25*
5	*Lu Rh*	*75*	20	*Ha Da.*	*24*
6	*Mi Su*	*60*	21	*Qu Fr*	*23*
7	*Jo Dr*	*53*	22	*Ma Ro*	*21*
8	*Ch Co*	*50*	23	*Ma*	*20*
9	*Lo Co*	*49*	24	*Jo Si*	*19*
10	*Ch Fr*	*48*	25	*Ro R*	*18*
11	*Th Be*	*47*	26	*Pa Mu*	*17*
12	*Co O'T*	*46*	27	*Le Bo*	*16*
13	*Ch Dr*	*45*	28	*Le O'B*	*14*
14	*Je Mi*	*44*	29	*Fr Ko*	*13*
15	*Ch Wi*	*42*	30	*Ru Do*	*0*

the particular compositions read but also with what constitutes general merit in English compositions. This group of 65 judges will therefore be referred to during the remainder of this discussion as the "trained group." The ratings given by these judges on each of the thirty samples of composition will be found in Record Sheet No. 1.

The second group of 74 judges were assigned the task of rating the thirty mimeographed compositions before any discussion had been held in class either of the derivation or the use of the Hillegas Scale. This group of judges were asked to indicate on their record sheets whether or not they had ever used the Hillegas Scale before, but some of them neglected to make any statement regarding the matter. Where no statement was made, the writer grouped the records of those who had been in attendance at Teachers College previous to this year with the group who stated that they were acquainted with the scale, while records made by new students were grouped with those who reported that they were unfamiliar with the scale. The judgments of the group who were "unfamiliar" with the scale are shown in Record Sheet No. 2, while the judgments of the "familiar" group are shown in Record Sheet No. 3.

The median[1] rating of each of the thirty compositions is probably the most accurate measure of its real position on the Hillegas Scale. The compositions used are shown below, together with the median rating of the 139 judges as to the value of each on the Hillegas Scale. The compositions are arranged in the order of their merit, from best to poorest.

He Si 8.01

Saturday I should like to transport myself to one of inumerable glens dotting the Southern portion of our country. It would be a shady, cool retreat, where moss covered rocks form natural seats,—where a crystal brook would babble and murmur of the wood creatures,—of the plants, and of the spring, as it winds its way among the monarchs of the woods,—where birds would serenade me with their sweet, warbling melody. And there I should study the wonderful manifestations of the power of God,—the bubbles of snowy clouds floating across the infinite surface of the azure sky,—the animals and their homes. And then, perhaps I should roam thro the leafy aisles of the wood and study the inumerable flowers and plants, and breathe nature-given balm—their perfume. The colorful pictures,—the sky with its exquisite tints,—the flowers,—the birds,—the brook,—would give me more pleasure and information than the greatest pictures ever

[1] The median rating is the rating above and below which there were an equal number of ratings,—in this case, 69 judges rated higher and 69 rated lower than the median rating on each composition.

painted. Such is my dream of a perfect day,—and to sleep beneath the gleaming stars set in the soft. dark velvet of the sky, and breathe the invigorating airs of the woods,—its perfect ending.

Re St 8.00 (See value 8.00 of the Supplement)

Ad Ja 7.68 What I should like to do when I leave High School

My highest ambition after I leave high school is to enter college and successfully complete my course there and then enter upon a career of service for others. From a child I have always longed to be among the poor and lowly not at first for the purpose of doing missionary work but because my life has had so much happiness that I can not bear to think of anyone being unhappy.

I have always had a great admiration for missionaries but their lives seemed to be so set apart, so far above anything I could become or hope to become. Not until a few months ago did the idea come to me with any great force but from that time on I was determined to become a missionary not only that I may share my happiness with others, but to teach them of the loving God, believing that through Him, they may be brought into lives of happiness and usefulness.

Lu Rh 7.51 What I should like to do when I leave High School

When I am graduated from Oceanside High School, I should like to study Chemical Engineering in the Carnegie Institute of Technology at Pittsburgh Pa. I should like to finish my work at college as soon as possible in order to begin the more serious business of life. This work has always held for me considerable fascination, and I am deeply interested in it. Material wealth and riches need not be the result of my choice of occupation, but rather satisfaction with my work, an interest in it and, above all, the realization that my life has not been wasted.

Eu Sw 7.47 My future plans

As a general thing a boy of fifteen or sixteen has no definite plans for the future. His ambitions are extremely eccentric and in most cases absurd. I believe that one of youth's first ambitions is to become an actor. He attends some theatre or perhaps the circus and is deeply impressed by blasé of everything. This passion usually last about two years. A boy's future depends upon his temperament and the impressions dictated by in the ordinary course of life. I am glad to say that I have emerged from the previously mentioned age and after careful consideration have come to the conclusion that a course at either West Point or Annapolis is the zenith of my ambitions. On the whole I prefer Annapolis but if by any chance I should be unable to secure an appointment there I would not object to West Point. Both Academies offer the widest opportunities to a young man both from an educational and fundamental standpoint. I do not believe that a young man could at the present time chose a more honorable or opportune future.

Mi Su 7.22 (See value 7.22 of the Supplement)

Th Be 6.01 (See value 6.01 of the Supplement)

Ch Fr 5.89

Next saturday I should like to have a good game of baseball because I like that game very much.

I would not care to win a game by unfair means nor by a large score but something like one to two or one to nothing in our favor with every man watching his own game and playing to the best of his ability.

I like baseball because you have to be quick to play a good game and keep your head when you are playing against odds or when your are in a tight place—

for instance You are two runs ahead of your opponent and they have two men on base and a good batter up to bat in the last half of the nineth inning,—then a good many pitchers and players get discouraged thinking there are no chances to win, but the ones that stick to it until the last man is out is the man or team for me.

Ch Co 5.76

My desire for enjoyment next Saturday would be a camping out party where I could obtain plenty of fishing, hunting, and water sports, of which I am fond of.

I would like to have my cousins accompany me, as they know a great deal about fishing, and know how to track wild game, owing to their previous expeditions which they made with their uncle last summer.

It seems to me that our journey would be all the more pleasanter if we traveled by canoe, and make one or two portages when possible.

I think this would be a pleasant way to spend next Saturday, as nothing is more injoying than to be out in the open country, where you can breath the fresh air of the woods and feel at home once more.

Ch Dr 4.98

If the weather be clear, my intentions are all planned out for next Saturday.

In the morning I have made a promise to pitch, (for a team just selected of fairly good players), who are to play the "Happy Nine" of Bullshead. The game is called at nine o'clock and the players are to be there about eight, so as to give us a chance to get warmed up (as base ball players calle it).

I am a pitcher that can not be found every day of the year. As I have played in a great many games of base ball. I have been practicing all this week after school hours. And think I can do the trick.

Lo Co 4.97 (See value 4.97 of the Supplement)

Jo Dr 4.86

Next Saturday I should like to Play ball in the morning till about 10 ocloack. Then I should like to go to the beach and go in for a swim. In the Afternoon I should like to go to the city and see the ball game between the giants and Philadelphia. In the evening I would like to go to the the theatre.

Co O'T 4.77

Next Saturday a number of girls in my class are going on a tramping trip, sometimes called a Nature Study trip. As a very merry and jolly bunch of girls are going, I should also like to.

And if I am not allowed to go on this Trip, I am making reckoning on spending The day with my Aunt, For in The evening, Some friends of hers are planning to bring a surprise party for her.

But as it is I really do think I would rather go on The trip, For I am sure I would have more fun.

Je Mi 4.36

I should like to go a way for a long journey to California. And see the nice fruit trees and see how large they are. It is Very nice out there. For I have friends out there and they say it is very nice?

There is large trees out there that they have made tunnels through and places where horses can go through

There is lots of apple, and Oranges in California They send a lot of fruit to New York. I an in Roslyn now and do not like it Much? I should like to stay there for three months but I think only can stay for a few Weeks. But all the same I like to go and see my friends?

Ch Wi 4.16

I am going to playball, in a corner lot near are house. I might go to Great Neck in the afternoon if it does not rain. I would like to go on a trip to New York. I think I can go. I would like to go in the woods and pick May flowers and Violets if they are out. I should like to go and see a ballgame, and a good one too. I might can go to the railroad station and see if it is a package there. I would like to see the Great Neck Scouts play ball tomorrow.

Ri Be 4.03

We have all ready secured bases and other things to have a good game of baseball and if we finish the game in time we will go into the woodes and make a hute and have a kind of party. We are going to have cake and crakers. We hope to have a good time for we are going to have games of all sorts

Ca Pe 3.84 (See value 3.84 of the Supplement)

Ro McN 3.66

Next Saturday being that I have an holiday, I expect to go to Washington D.C. to spend Saturday and Sunday looking at the Pension Building, Libraies and the Captail etc. Into which I am very much interested in.

I would like to see the large streets, and especially visit the cabinet the large room and hear the statesmen talking

Gr Mi 3.31

I should like to-do next saturday to help my mother and clean all the house and sweep the floors and scrob. and wash windows and chop wood for her and carrie it in the house and obey her and my *father*. Go to school hight on monday morning and to store and go out shopping with her. And if it is early mother and I would go to a show. Then I should help my big sister and clean house for her and wash windows and sweep and shake all the carpets and make the beds and open all the windows. Then mother and my sister in-law would give me fifty cent a piece.

Ma Ro 2.81 (See value 2.81 of the Supplement)

Qu Fr 2.67

I am going to play ball and help my mother and I am going riding, deliver papers
then with my money go by a new ball.
then I will feed my rabbits and chickins after they are feed I am going to Scouts
an practice
then when I come home I'll go play.
At night go to the movies after movies go get a nickels worth candy

Ha Da 2.54

I intend to go next Saturday is to sleigh riding, and part of the time to go ice skating if there is any ice skating, do my lessons, do my other work, and help my mother, help my brother, and sister.

And do my poia lessons, and take my ponia lesson, and go down celler and chop wood for my mother, go the to the store for errands for my mother, and wipe the dishes, and bring up coals, wood for my mother, if I can make a kite, and when it dries I will fly it for a little while and come in if it get cold and get warm and go out for a nother little and do the same thing if there is any more thing to do I will do it.

Pa Mu 2.50

What I shall do saturday
I shall go out to my aunt in Linderhurst
When I get out their, I will go out to the chickens and then see the two dogs
When uncle otto comes home from worke saturday night. Wee will
get up early in the morning
and get the chickencoop
clean
And in the might I will go to the move picturs with uncle otto

Le O'B 2.40

I am going to school tomorrow. Are you going to play with me.
I am going to the theatre to night. Are you going to night to. I am going home.
If you will play with me I will go. Alright are you coming now to play.
Don't forget to come. "Yes, I won't forget to come. I am going to play school at home. I will go with you I won't with you. Are you playing with us No I ant playing with you.
I Am going to play bass ball. Are you going to play to. "Yes, I am going to play.

Le Bo 1.93 (see value 1.93 of the Supplement)

Ma 1.06 (see value 1.06 of the Supplement)

Jo Si 1.03

I ever aften noon Three olock want I go home I took my gulf club and play. And I had lot of fun and sum Time I play bast ball in the night. And The Saturday I go to the gulf. club want I go there we bast ball and. I make lot of money and in Sunday

Ro R .80

I intend to go slealy rady next Saturday and mach a baby and pout a lout of chilon on.
And aftir we done we will go home and mach a big fout and mach two and we will have a snou ball find and we will rush om the eneany and we will catep there fout and we will traif thin home and we will ceap ther fout fou a price and there will mach a nether and we will fout thin again and we will have a good time

Fr Ko .68

What I should do Saturday play boll would The flower hill in the afftermoon and haue A chatch would the chatch on the boll lot I am going to patch on the manhasset team We wone the gam 16 to 4 and thun we went home

Ru Do 0.004 (see value 0 of the Supplement)

A graphic representation of the median value of each composition is shown in Fig. 1. An ideal scale would, of course, have one sample at 0, another sample at 1.0 unit above 0, another sample at 2.0 units above 0, and so on. Not enough of the samples used in this study have values at exactly the right points to make possible such an ideal scale, but as close an approximation to the ideal as was possible has been made. The values of the resulting supplementary scale are shown in Fig. 1, to-

gether with the values of the original Hillegas Scale and the values of all the compositions from which the samples of the supplement were selected.

The reader will observe in Fig. 1 that two of the thirty samples are very near quality 1, two are very near quality 5, and two are very near quality 8. In so far as the median ratings are concerned, it would apparently matter very little which of the two compositions in each of these three pairs was retained as a part of the supplementary scale. In order to determine which one should be used in each case, the distribution of ratings on each composition of the three pairs was more carefully studied. It was found that although both compositions *He Si* and *Re St* have a median rating of 8.0, the judges had greatly overestimated or greatly underestimated the value of *Re St* in fewer

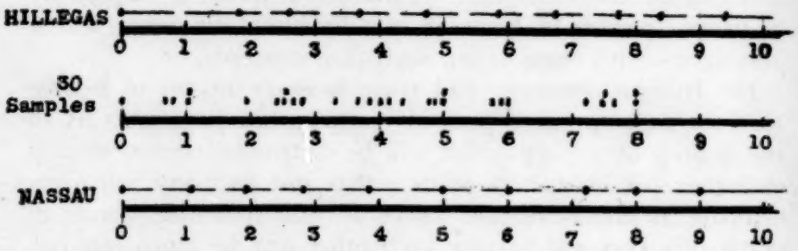

FIG. 1. Values on the Hillegas Scale of thirty compositions from which nine were selected for the Nassau County Supplement

cases than they had the value of *He Si*. In other words, the judges had agreed as to the value of composition *Re St* much more closely than they had agreed as to the value of *He Si*. In a similar manner, although both compositions *Ch Dr* and *Lo Co* have a median rating of approximately 5.0, the judges agreed more closely as to the value of *Lo Co*. Compositions *Ma* and *Jo Si*, likewise, are both very near quality 1.0, but there were somewhat fewer extremely bad judgments on composition *Ma*. It seems quite evident that to be of the greatest usefulness a scale should be composed of compositions about whose quality there is the least possible disagreement. In the three cases, therefore, where two compositions fall at approximately the proper point on the quality scale, that sample was used which showed the smallest number of very bad judgments.

In order to see more clearly the significance of the above paragraph and to understand the next few pages of this discussion, the reader should recall how the values of the Hillegas Scale were established. One unit on the Hillegas Scale is just such a difference between composition x and composition y as would cause 75 per cent of Dr. Hillegas' 202 original judges to declare that x was better than y, while the remaining 25 per cent of the judges declared that y was better than x. If 50 per cent had said that x were better than y and the other 50 per cent that y were better than x, then we should have been safe in saying that x and y were equal. A difference noticed by 60 per cent but not noticed by 40 per cent would probably be a real difference, but it would not be a very useful difference, for 4 persons out of 10 would not be able to recognize and employ the difference. A difference which is noticed by 3 out of 4 persons is, however, a really useful difference, and it also agrees with some of our statistical concepts.

Dr. Hillegas assumed, and there is every reason to believe that the assumption is perfectly sound, that judgments as to the quality of a composition will be distributed symmetrically on either side of its true value,—that just as many will over-estimate as under-estimate its value, and that large errors in either direction will balance each other and be much less frequent than small errors. If the true value of composition x is represented in Fig. 2 by the point marked 0 on the base line, the judgments as to its value would, according to the assumption, be distributed both to the right and to the left of 0 in diminishing frequencies represented by the surface enclosed between the heavy curved line and the base. This symmetrical surface representing the judgments on composition x, whose true value on the base line is 0, is the well-known friend and servant of the statistician, known as the Normal Surface of Frequency.

Another assumption made by Dr. Hillegas is that the variability of judgments on one composition is exactly equal to the variability of judgments on another composition. In Fig. 2 let us suppose that a second composition y has a true value on the base line which is just sufficiently far below (to the left of) the true value of composition x that exactly 75 per cent of the

judges in distribution x assigned to x values above (to the right of) the true location of y. Then, if judges vary just as widely on one composition as on another, we should expect to find 75 per cent of the judges in distribution surface y rating y as below the true value of composition x on the base line. The statistical name for the difference between the true value or median (50 per cent) point of a distribution and the point on the base which has 25 per cent of the distribution on one side and 75 per cent on the other is the Median Deviation (M.D. or P.E.). The second assumption may therefore be restated to read, "The Median Deviation of a distribution of judgments on one composition is equal to the M.D. of a distribution of judgments on another composition."

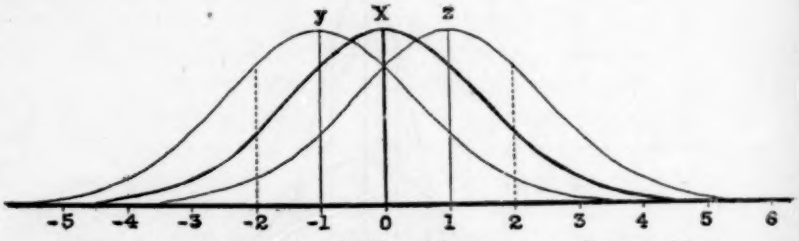

FIG. 2. Assumed equal variability of judgments on all compositions

The statement may now be made, which might have been made at the very beginning of the discussion for those who are familiar with statistical terms, that the Median Deviation is the unit of difference employed in the Hillegas Scale. The sample composition which on the scale has a value of 2.6 was judged as better than 2.6 by 50 per cent and as poorer than 2.6 by the other 50 per cent of Hillegas' 202 judges. Twenty-five per cent of these judges would have judged it as poorer than a sample whose actual value was 1.6, and on the other extreme 25 per cent of these judges would have judged it better than a sample whose real value was 3.6. We may assume that if Dr. Hillegas' judges had included in their list the composition *Re St* used in this study, 50 per cent of them would have rated it as better than 8.0 and the other 50 per cent would have rated it as poorer than 8.0, for the median of 139 judgments places this sample *Re St* at 8.0. If the M.D. of judgments on one

composition is equal to the M.D. of judgments on another, we may further assume that 25 per cent of Dr. Hillegas' judges would have rated *Re St* as poorer than 7.0 and another 25 per cent of them would have rated it as better than 9.0. It is quite surprising, therefore, to find that only about 10 per cent of the 139 judges used in this study rated *Re St* as low as 7.0 and only about 10 per cent rated it as high as 9.0.

If the base line of the two curves in Fig. 3 is allowed to represent M.D. units on the Hillegas Scale, the low rather flat curve encloses the surface representing the general distribution of judgments to be expected (according to Dr. Hillegas) for any

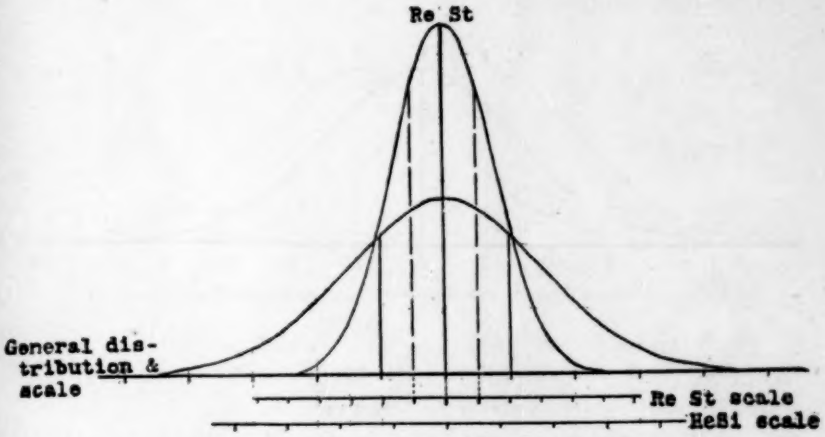

FIG. 3. Small variability of judgments on one composition

sample of composition, while the narrow high curve encloses the surface representing the actual distribution of judgments on composition *Re St*, whose median value was found to be 8.0. If the M.D. of the *Re St* distribution were used as the unit of a scale, in place of the M.D. of an assumed distribution common to all compositions, note how much shorter these scale units would be and how many more units would therefore be included between any two different points on the scale. Fig. 3 also shows the M.D. units that would result from using as the basis for a scale the distribution of judgments on composition *He Si*, whose

median value was also found to be approximately 8.0. If the distribution on *He Si* had been shown it would have been only slightly higher and less wide than the general distribution assumed by Hillegas. Such large differences in the form of surfaces of distribution of judgments on two equally good compositions were certainly unexpected. They tend to make one critical of the assumption that the variability of judgments on one composition is equal to the variability of judgments on any other.

A rough distribution is given below in Table I of the 139 actual deviations from the true value for each composition in the three pairs of equal samples mentioned above.

TABLE I

Composition called	Median value	Distrib. of Amounts of Deviation from Final Median Value								Total	Median[1] deviation
		0 to .4	.5 to .9	1.0 to 1.4	1.5 to 1.9	2.0 to 2.4	2.5 to 2.9	3.0 to 3.4	3.5 to 3.9		
He Si	8.01	47	30	31	15	9	4	2	1	139	.825
Re St	8.00	62	30	37	5	2	1	1	1	139	.487
Ma	1.06	53	67	18	1					139	.627
Jo Si	1.03	51	60	22	5		1			139	.568
Ch Dr	4.98	28	43	30	23	12		2	1	139	.900
Lo Co	4.97	42	46	27	15	6	2	1		139	.766

[1] The median of these deviations was calculated from a much finer grouping than that shown in this table, hence the unusual M.D. on *Ma*.

In connection with this table it was observed that the M.D. of judgments for each of the six compositions was less than one unit (1 M.D. of Hillegas' judges). This fact had in it a suggestion that possibly the 139 judges used in this experiment agreed with each other more closely than the judges used by Dr. Hillegas agreed among themselves. To test this possibility, the method used by Hillegas on the judgments of 202 judges was employed upon the judgments of the 139 judges used in this study. The resulting calculation is shown in Table II.

Table II, beginning at the top and reading across horizontally to the right (cf. Original Record Sheets 1, 2, and 3) reads as follows: Comparing the values given by each individual

TABLE II

RESULT OF APPLYING HILLEGAS' METHOD TO 139 RATINGS ON THE HILLEGAS SCALE

Relation of	No. of Records showing		Percentage "Better"	Amount "Poorer" $\left(\frac{D}{M.D.}\right)$	Amount better than *Ru Do* (1 = M.D.)
	"Is Poorer"	"Is Better"			
Ru Do to *Ma*	133	6	4.3	2.55	*Ma* is 2.55
Ma to *Le Bo*	131	8	5.8	2.34	*Le Bo* is 4.89
Le Bo to *Ma Ro*	120	19	13.7	1.62	*Ma Ro* is 6.51
Ma Ro to *Ca Pe*	117	22	15.8	1.48	*Ca Pe* is 7.99
Ca Pe to *Lo Co*	114	25	18.0	1.36	*Lo Co* is 9.35
Lo Co to *Th Be*	119	20	14.4	1.58	*Th Be* is 10.93
Th Be to *Mi Su*	129	10	7.2	2.17	*Mi Su* is 13.10
Mi Su to *Re St*	123	16	11.5	1.78	*Re St* is 14.88

judge to compositions *Ru Do* and *Ma*, 133 gave *Ru Do* a lower rating than *Ma*, while 6 of the 139, or 4.3 per cent, gave *Ru Do* a higher rating than *Ma;* converting 4.3 per cent into terms of M.D. by means of the table used by Professor Hillegas, there are 2.55 M.D. units between *Ru Do* and *Ma*. Similarly, 8 of the 139 judges, or 5.8 per cent decide that *Ma* is better than *Le Bo*, so it is therefore 2.34 M.D. worse than *Le Bo*. *Le Bo* being 2.34 units better than *Ma*, which is 2.55 units better than *Ru Do*, we must conclude that *Le Bo* is 4.89 units (2.55+2.34=4.89) better than *Ru Do*. It will be observed that *Re St*, the best composition, is 14.88 units above *Ru Do*. It will be remembered that the median values of these two compositions on the Hillegas Scale differ by exactly 8.00 units. The difference in quality between *Ru Do* and *Re St* actually remains the same, but if one accepts the M.D. of the 139 judges as a basis he finds 6.88 units more between them than he finds if he accepts the M.D. of Hillegas' 202 judges. This difference is shown graphically in Fig. 4.

The discrepancy between the two groups of judges may be due to the fact that the 139 judges had the opportunity of using an objective scale (the Hillegas Scale) in their arrangements of the thirty compositions, while the original 202 judges had no common objective measure of merit in composition. The 139 judges may agree more closely with each other because they

were all "school people." The fact that the thirty compositions were all of the same general type may have been partially responsible for the greater amount of agreement as to differences in merit. Probably all of these factors combine with less obvious causes to produce greater agreement among the 139 judges in this experiment than existed among Hillegas' 202 judges.

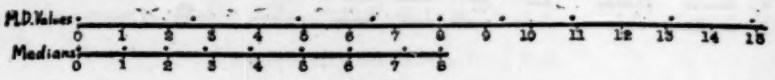

FIG. 4. Linear projections of M.D. values and of median ratings

In order to see whether the four hours' discussion and use of the Hillegas Scale in the summer session class had resulted in any increased ability to agree as to composition quality, Dr. Hillegas' method was used on the 65 "trained" judges' judgments and on the 74 "untrained" judges' judgments separately. The results of these calculations are shown in Table III. The reader will recall again that *Re St* is only 8.00 units above

TABLE III

Measured by	Distance above zero of samples								
	Ru Do	*Ma*	*Le Bo*	*Ma Ro*	*Ca Pe*	*Lo Co*	*Th Be*	*Mi Su*	*Re St*
A. Median on Hillegas Scale	0	1.06	1.92	2.80	3.84	4.96	6.00	7.21	8.00
B. M.D. of 74 Untrained Judges	0	2.22	4.17	5.41	6.87	8.33	9.71	11.66	13.39
C. M.D. of 65 Trained Judges	0	3.25	6.50	8.79	10.30	11.55	13.38	15.88	17.71

Ru Do, if we use the M.D. of Hillegas' judges as the unit, while it is 13.4 units above *Ru Do* if the "untrained" group are used as the basis, and if the 65 "trained" judges are used as a basis the difference is increased to 17.7 units. As was said before, the "trained" group were probably not more capable by nature than the "untrained." Four hours' discussion and use of the scale had merely made them agree much more closely in their

judgments of composition quality, even though they rated the thirty compositions without ever having seen any of them before and without conferring at all about them. These differences are shown graphically in Fig. 5 for each interval between samples of the supplement.

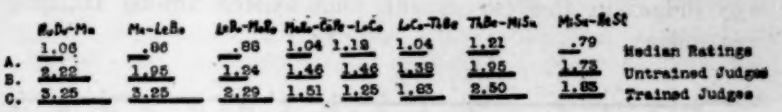

FIG. 5. Intervals between samples

In concluding this discussion of the derivation of the Nassau County Supplement to the Hillegas Scale, the writer must explain that he does not advocate discarding the Hillegas Scale. It was impossible, before the Hillegas Scale was devised, to know that judges would be more variable on one composition than on another. Now that we can measure such differences in variability fairly well, we should get together a large number of compositions upon which judges do agree very closely. Just because the median judgment places a sample at the right point on the quality scale is not sufficient excuse for using it. Only those samples upon which people agree closely should be used. In order to get a very perfect scale, it would possibly be well to train the judges until additional training would not result in greater agreement among them. If the variability of human judgment is not a constant on which our scales for comparison may be built, possibly the variability of the judgments of college graduates having ten hours' training in doing this work would more nearly approximate a constant for reference. For all practical purposes at present, however, some form of the Hillegas Scale, crude though it is, will supply all our needs in this direction.

The need for the second supplement, a tentative statement of standards to be achieved in English composition, was emphasized very strongly by the differences between the results being obtained by the same grades in different schools. To find fourth and fifth grade classes achieving results distinctly superior to eighth grade classes in a neighboring school is rather surprising until one stops to consider that up to the present no one has

told these teachers what quality of English composition to accept in their classes. Teachers probably determine their standards most commonly from the compositions pupils hand in during the first few meetings of the class. In very rare instances samples are preserved from year to year and used as a basis for grading compositions from later classes. In the large majority of cases, however, a new teacher has no way of learning what to expect or require. The random results which she obtains are illustrated by the records of the eight classes included in Table IV. Two of these classes are fourth grades, two are fifth, two are eighth grades, two are senior classes in high school, and all of them are in the same county within ten miles of each other.

TABLE IV

RECORDS OF EIGHT CLASSES

In class	No. of compositions rated on sample of value								Total No.	Median	75%
	0	1.8	2.6	3.7	4.7	5.8	6.7	7.7		Quality	
A			3	27	9				39	3.80	3.41
B		1	14	8	1				24	2.94	2.55
C					6	8	12	4	30	6.37	5.48
D				1	8	19	4		32	5.66	5.16
E	5	23	19	1					48	1.99	1.31
F				34	7	1			42	3.81	3.48
G						6	6	1	13	6.38	5.84
H			12	17	5				34	3.46	2.87

A and H are fourth grades, E and F are fifth grades, B and C are eighth grades, and D and G are fourth year high school classes.

The above table reads from left to right as follows: Three pupils in Class A wrote compositions which were scored on 2.6, twenty-seven pupils wrote compositions which were scored on 3.7, and nine pupils wrote compositions of quality 4.7, making altogether thirty-nine compositions, half of which were of quality 3.8, or better, and 75 per cent of which were of quality 3.41 or better.

Notice in the above table the difference between the two eighth grade classes or between the two fifth grade classes. Notice that a fourth grade class (A) does work distinctly better

than an eighth grade class (B), and that a senior class in high school (D) is quite clearly inferior to an eighth grade class (C). Certainly no teacher would be satisfied to have her class doing work typical of lower grades unless she were ignorant that they were doing such work. Knowledge of how well a class should do and ability to know when it was actually doing that well would seem to be prerequisites for successfully teaching a subject.

The purpose of the standards proposed in the following pargraphs is merely to serve as a guide to teachers, so that they may not be left as they have been in the past without any definite idea of the achievements to which their classes should aspire. Better standards will doubtless be proposed by others, but the suggestions which follow will be worth while if they serve merely to call forth criticism and more satisfactory standards.

How well do "Seniors" in high school write? What quality of compositions would you accept from "Sophomores" in high school? These two questions were asked of advanced students in Educational Administration. The answers were expressed in each case by means of the list of thirty compositions employed in the first part of this study. Without knowing the exact value of any of the thirty compositions, thirty-six experienced supervisors and administrators each selected two compositions from the lot, one to represent the average or median achievement of high school senior classes, and the other to represent just barely passing quality for the same grade. Forty-six other members of the group selected two compositions each, one to represent the average quality obtained from sophomore classes in high schools they had known, and the other to represent just barely passing or 70 per cent compositions for the same high school classes. The distribution of estimates made is shown in Table V.

It would not be sufficient, however, to take the estimates of even the most able group of educators in the world as a basis for standards of achievement. It is necessary to know in addition just how well pupils actually write. The median results of composition tests and measurements on the Hillegas Scale are shown in Table VI for a number of typical school

TABLE V

ESTIMATES OF QUALITY OF ENGLISH COMPOSITIONS TO BE EXPECTED IN HIGH SCHOOLS

		Senior classes		Sophomore classes	
Value	Sample	Median (85%)	Passing (70%)	Median (85%)	Passing (70%)
8.01	*He Si*			2	
8.00	*Re Si*	3		3	
7.68	*Ad Ja*	3		5	
7.51	*Lu Rh*	9	2	7	
7.47	*Eu Sw*	3	1	2	2
7.22	*Mi Su*	9		13	2
6.01	*Th Be*	1	6	1	8
5.89	*Ch Fr*	4	3	8	11
5.76	*Ch Co*	4	8	1	9
4.98	*Ch Dr*		4		2
4.97	*Lo Co*		5	2	2
4.86	*Jo Dr*				
4.77	*Co O'T*	2		2	3
4.36	*Je Mi*		2		1
4.16	*Ch Wi*				2
4.03	*Ri Be*				
3.84	*Ca Pe*		1		
3.66	*Ro McN*		1		1
3.31	*Gr Mi*				
2.81	*Ma Ro*				
2.67	*Qu Fr*				1
2.54	*Ha Da*		1		
2.50	*Pa Mu*				
2.40	*Le O'B*				1
1.93	*Le Bo*				
1.06	*Ma*				
1.03	*Jo Si*				
.80	*Ro R*				1
.68	*Fr Ko*				
.004	*Ru Do*				
Number of judges		36	36	46	46
Median		7.35 *Eu Sw* / *Mi Su*	5.49 *Ch Co*	7.12 *Mi Su*	5.83 *Ch Fr* / *Ch Co*

systems. The lower line of this table shows the tentative standard medians proposed by the writer as the result of this study. Expressed briefly, the proposed standards show the quality of compositions to be expected from at least half of a normal class of American boys and girls at the end of any given school year.

Some of the medians given in Table VI are shown graphically in Fig. 6.

It will be observed in both the table and the graph that the

TABLE VI

MEDIAN ACHIEVEMENTS IN ENGLISH COMPOSITION BY GRADES
(Hillegas Scale)

School system	Median score attained in grade								
	IV	V	VI	VII	VIII	1st yr.	2d yr.	3rd yr.	4th yr.
Lead, South Dakota[1]	3.57	4.11	4.64	5.01	5.57				
Newark, N. J. (1 school)[2]	2.39	2.51	3.56	4.33	5.27				
Ethical Cult. Sch., N. Y. C.[2]		4.01	4.72	5.39	5.74		HIGH		
Chatham, N. J[2]	2.95	2.85	4.10	4.02	5.29		SCHOOL		
Salt Lake City, Utah[3]	3.58	3.84	4.61	5.16	6.37				
Butte, Montana[4]	2.34	2.80	3.41	3.77	4.11				
Nassau County, N. Y.[2]	2.76	3.42	3.82	4.18	4.56	5.00	5.25	5.68	5.94
South River, N. J[2]	2.31	2.55	3.78	4.75	5.62	5.18	5.02	5.95	6.30
Mobile County, Alabama[5]	3.20	3.91	4.34	4.22		5.56	6.38	6.05	6.77
Mobile, Alabama[5]	3.31	3.85	4.60	4.95		6.69	6.93	7.24	7.54
Fifty-four High Schools[6]						4.99	5.88	6.38	6.69
Tentative Standard Medians	3.5	4.0	4.5	5.0	5.5	6.0	6.5	6.9	7.2

[1] From Annual Report of Superintendent of Schools, 1915-16, Lead, S. D.
[2] From unpublished studies made in the department of educational administration, Teachers College.
[3] Calculated from the distributions published in Cubberley's School Organization and Administration, World Book Company, Yonkers-on-Hudson, N. Y., 1916.
[4] From Strayer's Some Problems in City School Administration, World Book Company, Yonkers-on-Hudson, N. Y., 1916.
[5] From unpublished report of the Mobile School Survey by the Bureau of Municipal Research of New York City. The Mobile County scores are for the white pupils outside the city, while the Mobile scores are for the white pupils in the city schools of Mobile. The seventh is the highest elementary school grade in the Alabama schools.
[6] From master's essay of Albion Hale Brainard, prepared in the department of educational administration Teachers College, 1916. High schools from over 35 different states are included.

standard is higher than the majority of the schools have actually achieved, although at each grade one or more school systems have shown higher achievements than the standard suggested. If some schools are able to meet this standard without making particular efforts to do so, many schools should be able to meet it when they make definite efforts to do so. It seems desirable, at least, to set high standards "to shoot at" rather than to make the standards conform more closely to the achievements which the present more or less haphazard teaching efforts secure.

There is, in addition to the above, a real value in having a secondary standard to indicate the width of the distribution of scores to be expected in a class. There will usually be a small

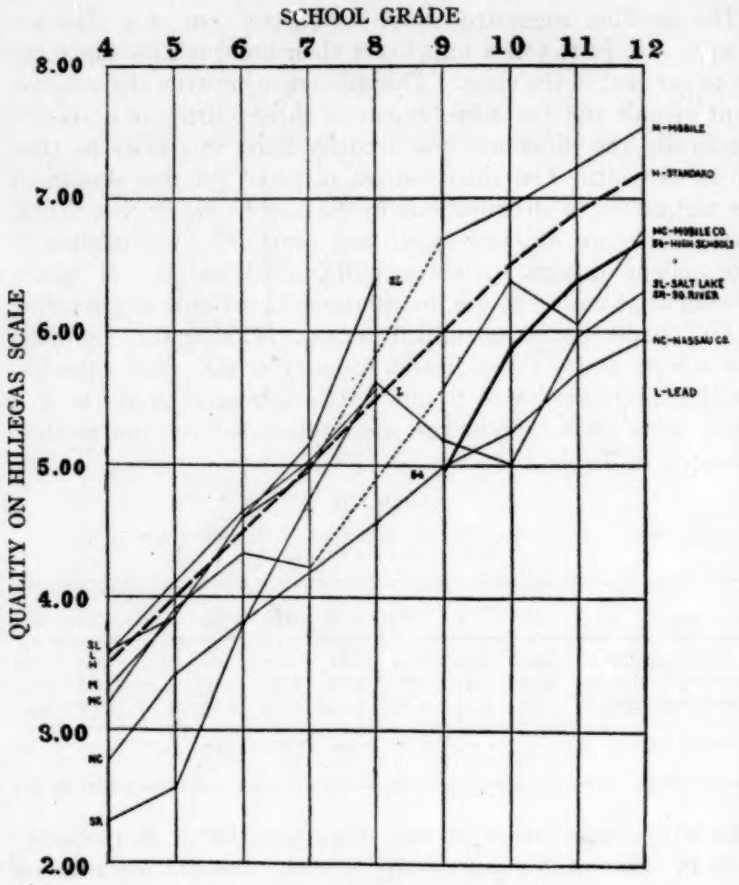

FIG. 6

number of pupils in each class who will be unable to approach the median standard, and for them a lower "mark" may act as a stimulus. For this purpose, the writer suggests that 75 per cent of each class ought to write compositions of or better than the quality indicated below:

QUALITY OF ENGLISH COMPOSITION TO BE EQUALLED OR EXCELLED BY AT LEAST 75 PER CENT OF THE PUPILS IN A CLASS

In grade.....	IV	V	VI	VII	VIII	IX	X.	XI	XII
Quality.....	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.4	6.7

The qualities suggested above for 75 per cent of a class are in each case just .5 of a unit lower than the qualities suggested for 50 per cent of the class. This difference between the achievement of half and the achievement of three-fourths of a class is practically the difference one actually finds in classes as they are at present. The chief sources of proof for this statement are the tables of distributions in Nassau County, New York, where the score on each paper was practically the median of independent ratings by three well-trained judges. It would be somewhat unsafe to use distributions based on a single rating of each paper by an untrained person. Taking the combined scores from thirty-three Nassau County schools and considering the distributions of results as though each grade were a single large class, differences were calculated by the method indicated in Table VII.

TABLE VII

DIFFERENCES BETWEEN ACHIEVEMENTS OF 50 PER CENT AND OF 75 PER CENT OF A GRADE

School grade.....	IV	V	VI	VII	VIII	IX	X	XI	XII
No. of compositions.	1046	930	894	741	607	554	332	237	165
Median (50%) score.	2.76	3.42	3.82	4.18	4.56	5.00	5.25	5.68	5.94
75% of grade above.	2.25	2.72	3.16	3.49	3.79	4.42	4.60	4.95	5.42
Difference (50-75) ..	.51	.70	.66	.69	.77	.58	.65	.73	.52

As was shown earlier in this discussion, being in the same grade in different Nassau County schools does not mean doing the same sort of English composition work. The above differences are larger than would be found if we were dealing with actual classes or recitation sections. By taking all those recitation sections in Nassau County containing more than 25 pupils in the fourth grade, 20 pupils in the eighth grade, and 12 pupils in the senior high school grade, the distributions of differences between the achievements of 75 per cent and the achievements of 50 per cent of the pupils in actual classes were found to be as shown in Table VIII.

From Table VIII it will be observed that the requirement is not too high which suggests that the achievement of 75 per

TABLE VIII

FREQUENCY OF DIFFERENCES BETWEEN ACHIEVEMENTS OF 50 PER CENT AND OF 75 PER CENT OF ACTUAL CLASSES

Size of differences	In grade IV	In grade VIII	In grade XII
.30–.39 Hillegas units	3	3	
.40–.49	5	5	2
.50–.59	4	3	2
.60–.69	7	1	1
.70–.79	2	2	
.80+	3	1	1
Median difference[1]	.59	.46	.52

[1] Calculated from actual cases rather than from above distributions.

cent of a class should be within .5 of a unit of the achievement of 50 per cent of the class.

For the aid of those who may be unfamiliar with the method of calculating the 50 per cent or the 75 per cent achievement of a class, when the scores have been assigned to the papers merely in terms of the nearest samples on the scale, the following table is given.

TABLE IX

TO FACILITATE THE CALCULATION OF THE ACHIEVEMENTS OF ENGLISH COMPOSITION CLASSES MEASURED BY THE NASSAU COUNTY SUPPLEMENT TO THE HILLEGAS SCALE

Sample	Actual value	Range of step[1]	Length of step	Sample
0	0	0– .53	.53	0
1.1	1.06	.54–1.49	.96	1.1
1.9	1.93	1.50–2.36	.87	1.9
2.8	2.81	2.37–3.32	.96	2.8
3.8	3.84	3.33–4.40	1.08	3.8
5.0	4.97	4.41–5.48	1.08	5.0
6.0	6.01	5.49–6.61	1.13	6.0
7.2	7.22	6.62–7.61	.61	7.2
8.0	8.00	7.62–8.50	.89	8.0
9.0	9.0	8.51–		9.0

[1] The third decimal point is omitted from these tables.

To show the method of using this table we may take the following distribution of scores as an example, and calculate the achievement of 50 per cent and of 75 per cent of the class.

Scored on	0	1.1	1.9	2.8	3.8	5.0	6.0	7.2	Total
Frequency			3	16	25	4			48

The median achievement will be the quality above which there are 24 papers (48÷2=24) and below which there are 24 papers. If we count the three which were rated on 1.9 and the 16 which were rated on 2.8 we will have only 19 papers, and in order to reach the middle of the distribution we shall need to count 5 of the 25 papers rated on 3.8. We may assume that the 25 papers are spread evenly over step 3.8, extending (see Table IX) from 3.33 up to 4.40 at equal intervals. If we count out 5 of the 25 we shall pass over one-fifth of this step which is 1.08 units long; in other words, we shall have gone upward from 3.33 a distance of .22 of a unit (1.08÷5=.22) and we shall therefore have arrived at quality 3.55, which is the median quality of the distribution.

In order to find the achievement made by 75 per cent of the class, we shall need to count only one-fourth of the way into the distribution,—that is, we shall need to count out the lowest 12 pupils (48÷4=12). After counting the 3 papers scored on 1.9 it will be necessary to count out 9 (12—3=9) of the 16 scored on 2.8. Assuming that the qualities of the papers are distributed evenly over step 2.8 from quality 2.37 to quality 3.32, we shall count out nine-sixteenths or .56 of the step, which is .96 of a unit long. This will take us to a point .54 of a unit (.96×.56=.54) above quality 2.37, which will be quality 2.91, the achievement made by 75 per cent of the class.

The table for the original Hillegas Scale which corresponds in its use to Table IX is given here as Table X.

TABLE X

TO FACILITATE THE CALCULATION OF CLASS ACHIEVEMENTS ON THE HILLEGAS SCALE FOR ENGLISH COMPOSITION

Step No.	Value of sample	Range of step	Length of step	Step No.
0	0	0.00– .91	.91	0
1	1.83	.92–2.21	1.30	1
2	2.60	2.22–3.14	.93	2
3	3.69	3.15–4.21	1.07	3
4	4.74	4.22–5.29	1.08	4
5	5.85	5.30–6.30	1.00	5
6	6.75	6.30–7.23	.93	6
7	7.72	7.24–8.05	.81	7
8	8.38	8.05–8.87	.82	8
9	9.37	8.88–		9

The class scores obtained by scoring compositions on the Supplement will be the same as the class scores obtained by scoring on the Hillegas Scale, if the scoring is accurately done in both cases. One composition is not a complete measure of an individual child's ability in English composition, but one set of compositions is a fairly reliable measure of the ability of a class. Whether the compositions are rated on the Hillegas Scale or on the Supplement matters little, unless it be in the ease the judges find in using one or the other. An added validity is given to any measurement of a class if each composition is rated independently by at least three judges before its final rating is determined.

It is not proposed that any teacher should use the Hillegas Scale in any form as the basis for all her marks in English composition. The scale is a measuring instrument and not a pedagogical device. In her instruction a teacher may at one period be laying stress on punctuation and give her class marks according to their success in punctuation. At another period the teacher may be placing her emphasis upon the choice of words, and the class marks may well reflect this emphasis. But at some two or three periods during the year teachers should measure the general results that are being obtained by this instruction. For this purpose a number of teachers should coöperate with each other in rating papers on some form of the Hillegas Scale. When such practices become more general, we may hope that results in English composition writing will become uniformly better.

COLLEGE NEWS AND DEPARTMENTAL NOTES

SERVICE IN MEMORY OF PROFESSOR NORSWORTHY[1]

TRIBUTE BY DEAN RUSSELL

We come here to-day to pay our tribute to a dear friend and colleague. We should be overwhelmed, if we were to allow ourselves to dwell upon our loss. How great it is you know full well. No other break in the chain that binds us together in our institutional life would be felt so keenly; no absentee from our circle could be so sorely missed as we miss her. So completely had she become one of us that her passing deprives us of something seemingly a part of ourselves.

It is characteristic of some of the finer human virtues that giving does not deplete the store of the giver. The more one gives of love and sympathy, the more one has to give. The silver lining to the cloud that now enshrouds us is that she has taught us how to give unstintingly—to give our time, our energy, our means to forward every good work; taught us how to do the day's work in such a way as to bring the highest rewards; taught us how to live cheerfully even under the weight of pain and sorrow; and taught us how, by losing all, to gain complete mastery over death. She embodied, as few do, grace and charm of personality, exceptional intellectual power, and self-sacrificing devotion to duty. Her life was a constant inspiration to those of us who knew her as teacher and colleague. In her death we take courage and again resolve to carry on her work, in her own beautiful way, and for the high purpose that she ever put before us.

We have with us to-day Dr. Thorndike, the teacher to whom

[1]Held on January 12 in the Milbank Chapel of Teachers College.

she would probably acknowledge she owed more than to anyone else. I think it is peculiarly proper that Professor Thorndike should be asked to speak of her as a student and a teacher.

Remarks by Professor Thorndike

Out of the great richness of Professor Norsworthy's service as teacher, woman, Christian, and as friend, it falls to me to speak of her work in the department that she served so long. After graduating from the Normal School at Trenton in 1896, and teaching for three years, Naomi Norsworthy came to Teachers College. At the end of her first year she became an assistant in the department of educational psychology. In the sixteen years since then she gave, as instructor and professor, unfailing service and devotion to the College; no task that she was asked to perform was ever slighted, no problem of the department's work was ever neglected. Her work for the social and religious organizations of the College and her tireless care for individuals never caused her to abate full performance of her own teaching or coöperation in the department's responsibilities. She was offered money and power in large measure as an administrative officer in another institution—she could have had extended authority here; but she stayed by the work which she had begun and which never lost its interest.

Of her skill in teaching you all know. At one time or another she taught a majority of the courses given in the department, both those for undergraduates and those for graduates—always with consummate success. Her success was the product not only of sympathetic insight into students' minds and response to their interests, but also of thorough, conscientious preparation. She dignified teaching, never making it secondary, either to scholarship or to educational management. In her teaching, as in all her work, she was utterly devoid of ostentation; all thought of self was lost in the artistry of making students understand, remember, and apply.

To think of Professor Norsworthy is to think first of human love and charity. And this is fitting; for in no woman was human kindness more uniform and persistent. Her kindness was not, however, a diffuse benevolence, an indiscriminate sympathy. It was directed by acute thought and sound com-

mon sense. Her sense of workmanship never tolerated mercy where strict justice was needed. For sham, meanness, and disloyalty she had an honest, vehement hate.

Over three thousand men and women have been under her direct influence as her students. Every one of these, were they here, would bring his tribute of respect for her ability, reverence for her character and affection for herself. Each of her colleagues in the department quickly learned to honor and love her. If anything was entrusted to her to do, all burden of anxiety for that matter fell at once from everybody else. If criticism came from her, we took it gladly. In every one of her successes we took pride. We tried to help her as she helped us. We shall try to honor her by maintaining the devotion to teaching and the sensitiveness to all human values which she never relaxed.

Her energy and wisdom asked no praise. Her loyalty and love sought no reward. But a place in our minds as the perfect teacher and in our hearts forever as a perfect friend is the reward she would cherish—and that we give.

Remarks by Professor Whitley

It has been my privilege during fourteen years to know Miss Norsworthy intimately in at least three different capacities—as a teacher, as a co-member of the staff, and particularly as a close personal friend.

Anyone who has ever been a student of hers can testify not only to the wonderful charm of her personality, but also to her skill in her beloved art of teaching. She had the ability so to guide a discussion that the timid were emboldened to take part, the hazy thinkers were led to clear expression, the belligerent were rendered willing to compromise, and the stubborn were allowed to convince themselves of the opposite view from that which they had started. Her fertility in illustration made her class periods as interesting as her alertness in repartee made them enlivening.

But to know Miss Norsworthy only in the class room was to enjoy but one side of her. Shy and sensitive as she was, she preferred, and needed, in the summer vacation to get away from large crowds and stay in some quiet country place where

for long days together she could rest in the open air. In the more intimate circle of family and friends there was still more of her gay, whimsical vivacity revealed. Because of her fragile physique she was debarred from the rougher kinds of sports; but she spent many happy hours boating, bathing, driving, touring, or in exploration on foot of some secluded, woodsy spot. Refreshed by such summers, but never so built up physically as we could wish, she would return to the College still more ready for the blessedness of the giving of herself.

Many groups can look back to happy associations with Miss Norsworthy. In committee work she knew how to handle a delicate situation so that too individualistic members were led to a coöperation apparently self-suggested. Chaotic plans evolved into orderliness under her leadership, and discordant attitudes resolved into harmony. Chiefly was she in demand in the religious organizations for the personal touch in which the more public lecture courses should culminate. By her gentle persuasiveness did she help others to greatness; above all by what she was in her daily living did she influence others, as did Naomi of old, to decide, "Thy God shall be my God."

Not only for groups but for untold numbers of individuals did Miss Norsworthy become, in quite other than the academic sense, adviser and friend. No office hours were ever long enough in which to interview the many who sought her help and sympathy. The corridor near her room has often, by its rows of chairs, witnessed eloquently to the length of time people were willing to wait if they could but get their turn at last to confide in the ever-ready listener. Even during the last two years, with the heavy strain of anxiety at home and with the handicap of nights broken by needed ministrations for her mother, and at a time when already, had we but known, the fatal disease must have been at work in her system, even then Miss Norsworthy never spared herself, never ceased to give generously of her time and strength to any who came to ask of her.

Too broad to be committed to a single friendship, she had the ability, so rare and so precious, of taking another and another and yet others into the close circle. There was the special, warm place in her heart for each. Of absolute sincerity

and loyalty herself, she expected the same in those around her. Deep love and devotion have been the returns from the many who know themselves her friends. Hers was the winsome charm that drew people of all sorts. Hers was the intuitive knowledge to say that which brought relief to one in a state of unbearable tension. Hers was the way of looking at things that set conduct in an intelligible perspective. Hers was the gift to calm not merely by soothing but by restoring self-control. Hers was the wisdom to avoid fostering a weakening self-pity, when a bracing resolution was necessary.

Long ago she found and used these quotations as an aim to set before her in her friendship,—quotations which we, who knew her, feel reveal her best: "To have a true friend one must love Truth and Right better than he loves that friend." "Friend, come up higher—higher along with me, that you and I may be those true lovers who are nearest God when nearest to each other."

It is hard to realize just now that we shall not have her dear physical presence any more; but we should have failed in all the fruitage of her friendship did we not answer to the increased responsibility now ours to interpret in heart and life what such a personality has meant. It seems to me she is still, from her new life, to which she looked forward for greater opportunities of love and service, sending the same message, "Friend, come up higher." "For I am persuaded that neither death, nor life, nor things present nor things to come . . . . can separate us from love."

Closing Remarks by Dean Russell

It is suggestive that in speaking of her we say "Miss Norsworthy." Even when speaking of her scholarship she was not mentioned as "Dr. Norsworthy" and but seldom (and always in official relations, merely in speaking of her College work) was she mentioned as "Professor Norsworthy." Miss Norsworthy—woman, generous, sympathetic, loving, and yet fragile; it is the womanliness that stands out, the personality that attracts us most, because she used her personality, she used her talents, she used her scholarship, she used that marked skill in teaching for the attainment of an ideal. That is why she came

so close to us. That is why we miss her so much, and shall miss her.

This is not, perhaps, the time or place to tell of her accomplishments in College work or what she has done for our young women's social and religious organizations generally, and of the extended influences of that work in other institutions besides ours. I think these matters have been touched upon more beautifully than I can present them, but we must not forget the fact that she had the Great Teacher's instinct and the Master's spirit which led her to use all that she possessed in the service of others. In testimony of that I am getting every day letters from former students who somehow feel that they must express what has already been said here to some one connected with the College. The day of her funeral I received in the morning's mail a Christmas card with the word "Merry" stricken out and in its place a gold piece, asking me to deposit it with the Treasurer as the beginning of a fund in memory of Miss Norsworthy. A few days later I opened another letter from a teacher in Brooklyn, another of her former students, pledging one hundred dollars to a fund. No one had suggested a fund. It was just the spontaneous expression of her students' desire to give some tangible expression of the deep love and affection that they and we feel for her.

Prayer by Chaplain Knox

O God, our Heavenly Father, who by the guiding of Thy Spirit has raised up those who have been Thy witnesses among men and the Light of the world in their several generations, we give unto Thee our heartfelt gratitude and praise for the life of her who has been a true witness and light unto us, alike our companion and teacher, our counsellor and our friend.

We thank Thee for the rare talents of intellectual power with which she was so richly endowed and which she faithfully devoted to a larger understanding of the mysteries of the mind, and to a seeking of the truth which sets men free:

For those generous qualities of heart and soul which so endeared her to us, enabling her to enter with sympathetic insight into the lives of all who came in contact with her, there to awaken the new resolve and unveil the higher vision:

And for the faith that she so grandly won and lived, by which her life was ever joined with Him who said, "I go to prepare a place for you, that where I am, ye may be also."

Grant that her life, and the rich heritage she has left, may ever abide with us, adding through the unending years to the honor and fame of the University, to which she freely gave herself, a strength and inspiration to all who go forth from this place to live, as she lived, in the service of Thine eternal Kingdom!

We ask it in the Name of Him who is the Way, the Truth, and the Life. Amen.

Biographical Sketch

Dr. Naomi Norsworthy was born in New York on September 29, 1877, and died on December 25, 1916, at her home in New York, after an illness of several months. She graduated from the New Jersey State Normal School in 1896, receiving the state diploma. In 1901 she received the degree of Bachelor of Science from Teachers College, and in 1904 the degree of Doctor of Philosophy.

She taught in the public schools of Morristown, N. J., from 1896 to 1899. She was assistant in psychology in Teachers College, 1901-02; tutor, 1902-04; instructor, 1904-09, and associate professor since 1909. Dr. Norsworthy was the author of "The Psychology of Mentally Deficient Children," and co-author with Professor Strayer of "How to Teach." She was a member of the American Psychological Association, the National Education Association, and the American Association for the Advancement of Science.

Miss Norsworthy is survived by her father, Samuel B. Norsworthy, and two brothers, Professor Leonard D. Norsworthy, of Columbia University, and Howard Norsworthy, of Central Africa.

TEACHERS COLLEGE ESTABLISHES A NEW EXPERIMENTAL SCHOOL

The General Education Board, founded by John D. Rockefeller, has agreed to provide Teachers College with the funds necessary to establish and conduct a school for the purpose of

scientific experimentation and constructive work in the reorganization of elementary and secondary education. The school will be opened next fall with accommodations for from 150 to 200 pupils. During the first few years it will carry out cautious experiments with a view to the improvement of the subject matter to be taught, so that the curriculum may be better adapted to the needs of the life of to-day than the one now in common use. There will be constant coöperation between the faculty of the school and the faculty of Teachers College, thus insuring a careful study of every experiment made. This arrangement will make for carefully considered and continuous progress toward the goal for which the school is established.

Modern languages will be emphasized and experiments will be made with a view to determining what methods of teaching English, French, and German give the most practical results. During the first few years Latin and Greek will not be taught. Experiments will be made, however, to ascertain whether the important ancient classics can be effectively used in translations. There is nothing in the plan of the school that permanently bars Latin and Greek. At a later date it is possible that experiments will be made to teach these languages by better methods and with aims different from those now generally accepted. The study of science in its various forms and in its relations to life will be prominent throughout the school. New methods of teaching literature, history, and civics will be tried. Industrial and domestic arts, music, and drawing will all have a place in the course of study. The subject of mathematics will receive special consideration in the hope of working out a rational curriculum which connects mathematics with its use in life and its place in the development of civilization. Organized recreation, play, and games will be provided. Constant efforts will be made, by means of individual, class, and school excursions, by means of pictures, charts, maps, shop and laboratory excursions, special reading matter, and discussions, to give the pupils sufficient contact with their natural, industrial, social, economic, vocational, and domestic environment to derive the basis for their school work from real situations. In the first years of the experiment every effort will be made to secure a curriculum sufficiently rich in content to be in itself a

valuable life possession. No studies will be taught purely for their disciplinary value, it being the aim of the school frankly to experiment in obtaining for the pupil necessary "culture and discipline" through a study of subjects which are in themselves valuable and useful. As the "doctrine of formal discipline" is one of the much debated educational theories of the day, it is highly appropriate that a school of this kind should offer to the educational psychologist an opportunity to test the mental ability of pupils who have followed this sort of a curriculum, and to compare them with pupils of other schools where certain studies are taught largely with a view to their disciplinary value.

Teachers College intends to have this new work carried on with the same breadth of view and scientific accuracy as would be found in an institute of medical research or a laboratory of experimental agriculture. In this connection, every resource of Teachers College will be used with a view to measuring scientifically the results of the experiment.

The director of the school will be Professor Otis W. Caldwell, now head of the department of natural sciences in the School of Education of the University of Chicago. Before becoming a member of the faculty of the University of Chicago, Dr. Caldwell had had experience as a teacher and supervisor in elementary, secondary, and normal schools. He is the author of several important books on botany and general science for the use of secondary schools, and has also edited a leading textbook in agriculture. For years he has been one of the most active and effective workers in adapting science to the uses of the elementary and secondary school. Recently he has participated in the Gary survey which is being conducted by the General Education Board, and he is now completing a monograph on the teaching of science in the schools of that system. In addition to his position as director of the school, Dr. Caldwell will become a professor of education in Teachers College. In recruiting the staff, the country will be searched for able and resourceful teachers in all the different fields of elementary and secondary education.

It is planned to open the school with six classes, the first three years of the elementary school, and the three years of a

junior high school. As the school develops, other years of instruction will be added. Both boys and girls will be admitted though they will not necessarily be in the same classes in all subjects. It is planned that the tuition fees shall be moderate and that there shall be a number of full and partial scholarships. Subject to the authority of Teachers College, the general management of the school will be vested in an administrative committee composed of James E. Russell, dean of Teachers College, chairman, and the following additional members: Otis W. Caldwell, V. Everit Macy, Mrs. Willard Straight, Felix M. Warburg, Arthur Turnbull and George E. Vincent, Wickliffe Rose, Charles P. Howland, and Abraham Flexner. The faculty and the officers of the school will be selected and appointed by the trustees of Teachers College on the nomination of the administrative board.

In order that the experimental work of the school may be carried out under the most favorable conditions it is expected that check experiments under the direction of the faculty of the school and the faculty of Teachers College will be carried out in other schools. Genuine educational research in many affiliated schools may be the final outcome.

In connection with the establishment of this new school, it should be recalled that since its organization Teachers College has been a leader in experimental education, much of its early investigation being accepted to-day as the best educational practice. In fact, Teachers College itself started as an educational experiment, its initial task being to prepare teachers of manual training and household arts, types of work which in that day were more discussed than the present new school and for which there were no trained teachers. The present practice throughout the country in teaching these subjects is the result largely of this first experiment. The Horace Mann School of Teachers College was as radical a departure when it was started thirty years ago as the new school purposes to be to-day. The present social aims in education were widely developed in this school. The Speyer School, established by the College sixteen years ago, was an experiment in improving the curriculum for the type of child found in the average public school. Each of these schools began with the most advanced educational ideas

of its day. We now have a generation of students and thinkers with viewpoints concerning education much different from those heretofore accepted. There is need, therefore, for a new school to prove whether or not these new theories are sound.

In establishing this new school, the College will continue its other schools, each to carry on its particular type of investigation. In the Horace Mann School every facility will continue to be offered for training boys and girls for college and for home life. The school is constantly experimenting with different methods of instruction, and is as progressive as the conventional requirements for college entrance will permit. The Speyer School has for two years been conducting, in coöperation with the Board of Education of New York, an experiment for vitalizing the classical curriculum and for reducing by improved methods of instruction the length of time necessary to cover this curriculum. It is aimed to do three years' work in two. In this school special attention has been given to the classification of pupils according to their mental ability, the brightest boys being in one class, the less able in another class, etc.

The new school just established will attempt to emphasize a curriculum in which science and modern languages predominate, and in which less attention will be paid to the traditional requirements for admission to college. It is expected that a certain number of colleges will agree to accept the recommended graduates of this school to see whether its pupils can do college work as satisfactorily as the graduates of the regular schools. In a number of respects the new school will resemble the Modern Side School of England and the Realschule of Germany. Particular attention will be given to improving the ways and means of instruction, and to proving whether or not the modern theory of formal discipline is sound. With the generous financial support assured by the General Education Board, there is every reason to hope that the new school will prove to be another helpful contribution to educational practice.

Despite the sensational newspaper comment, the new school is not likely to be more radical than the Horace Mann or Speyer Schools were when they were started. In time it will become as conventional as common sense and scientific experiment may justify. There is nothing necessarily radical or unsafe in the

genuine research of a scientific institution. The new school intends merely to take its place alongside the many other institutions of scientific investigation now so generously supported and endowed in this country. What it finds of general educational value will be turned over to the schools of the country if they wish to use it; whatever is found to be unsound and unusable will be frankly so labeled.

DEATH OF MISS FLORENCE L. WEEKS

Miss Florence L. Weeks, for the past six years instructor in and chairman of the department of mathematics in the Horace Mann High School for Girls, died on January 15 after an illness of several months.

Miss Weeks was born in Brooklyn on January 25, 1880. She graduated in 1895 with the classical diploma from the high school of Long Island City, after which she attended the Jamaica State Normal School, graduating with the classical diploma in 1900. She was a student in Teachers College from 1904 to 1908, receiving the degree of Bachelor of Science and the Bachelor's diploma in mathematics in 1908. Since 1908 she had taken graduate work in Teachers College. She taught in the elementary schools of Woodside, Long Island, from 1900 to 1907 and from 1909 to 1911. During the year 1908-09 she taught mathematics in the Ethical Culture High School of New York City. She entered upon her work in the Horace Mann High School in 1910.

Miss Weeks was a teacher of exceptional skill and scholarship, much beloved by both her students and her colleagues. She was thoroughly devoted to her work, to which she gave fully of her time and her strength. She was also active in the social phases of the school life and in Sunday School work. She was a member of the Women's Faculty Club of Columbia University, which she was prominent in organizing, and for two years was its treasurer. In her death the Horace Mann School and Teachers College suffer a distinct loss, and the profession of mathematics is robbed of one of its ablest teachers.

TEACHERS COLLEGE FESTIVAL

Plans for the annual Teachers College Festival to be given on February 23 and 24 are well under way. The performance of Saturday evening, February 24, is the one especially provided for the alumni who are returning to the College on that date for the Annual Alumni Conferences and Reunion.

Americanism of the future, as growing out of the world-need caused by war, is the theme of this year's festival. In comparison with last year's production, it should be called a pageant, as it consists less of informal merry-making and more of spectacular and symbolic presentation of an ideal, carried out almost wholly in dance and pantomime and supported by striking effects of costume, lighting, and music.

The spirit of the nation that is to be is symbolized by a mystic jewel, sought by all peoples, and glowing, now dimly, now brightly, as they approach nearer to the true spirit of the future, that of the brotherhood of service. The Jewel is first seen by an Indian tribe who appeal in dance to the Great Spirit for an explanation of the mystery. A theme from their music reappears throughout the pageant, and is transformed into a triumphal chorus at the end. The Great Spirit sends them a Prophet, who foretells the passing of the Indian, and the coming of many races, all with dreams of the future, which in the fullness of time shall unite in the national spirit which the Prophet can not yet foresee but which will be revealed to him as the Jewel shall shine in its full splendor.

After a striking Dance of the Sea, various groups present in episodic form such ideals as the lure of gold, slavery to toil, religious independence, American humor, educational uplift, and coöperation through play. Then grim spirits of war displace the Prophet who appeals to the Jewel; in answer, Spirits of Mercy enter which lead all the scattered groups to the succor of the war-victims and to a united brotherhood under the light of the Jewel which blazes brightly over their future.

The preparation of the pageant, from the inception of the idea to the details of committee work, has been in the hands of the Dramatic Arts Association, with the coöperation not only of the various departments of the College that have always

contributed, but of a larger number of student organizations than ever before. The primary object to which the proceeds will be devoted is, as usual, the Teachers College professorship of education in the Canton Christian College of China.

THE COLUMBIA DAMES

On Tuesday evening, February 13, the Columbia Dames gave their second social evening of the year for husbands and friends at Earle Hall. An interesting musical program was followed by the two-act farce *Mr. Bob*, presented by members of the club.

The last "hike" taken by The Dames was a visit to the Loose-Wiles Sunshine Company on Long Island. A personally conducted trip through the Waldorf-Astoria kitchens is included in the list of "hikes" that are to take place in the near future.

THE MEN'S FORUM

On February 12 Dean Russell addressed the Men's Forum on "Educational Relics." The talk aroused considerable comment and as a consequence arrangements have been made to continue the discussion. The Dean is especially interested in thus opening the way for constructive thought and action on live educational topics, and to this end will at the next meeting lead in a consideration of the curriculum.

Y. M. C. A.

The Bible Class under the leadership of Chaplain Knox offers to the men of the College an unusual opportunity to come into close personal touch with current religious questions, and to discuss informally and under sympathetic and competent guidance some of the most vital social problems of the day. At present a class of fifteen members is studying the Laws and Prophets of the Old Testament. Meetings are held each Thursday evening, from 7.15 to 8.00.

THE SECONDARY CLUB

On January 18, the Secondary Club had the privilege of listening to an address by Dr. Abraham Flexner, of the General Education Board. The speaker was introduced by Professor

Sachs, who also made a few remarks. Although Dr. Flexner did not emphasize the problems incident to the new experimental school, for the success of which he will coöperate with Teachers College through the General Education Board, he gave a very timely address on modern secondary education.

Following the more formal program the club members participated in community singing led by Mr. Fretwell. Under the direction of Miss H'Doubler they also joined in group games and folk dances. These last have now become a regular and very popular feature of the monthly meetings, and have the further distinction among club programs of being "something different."

THE CHINESE EDUCATION CLUB

One of the youngest and at the same time one of the most unique of the student organizations of the University is the Chinese Education Club of Teachers College which came into existence about a year ago. The membership includes Chinese students who are interested in native education and others, especially missionaries, who are engaged in similar problems. The fundamental purpose of the organization is to consider and discuss Chinese educational questions in the light of American experience, and to bring about the fullest coöperation among those persons who are now active in this work. To this end various questions have been presented before the club, among them the following: "Education in Kiangsu Province," "The Relation of Mission Schools to the Chinese Government," "The Influence of Chinese Philosophy on Education," "Chinese Secondary Education," and "The Education of Chinese Women." At the meeting to be held March 15, a talk will be given on "Chinese Principles of Education."

The executive machinery of the club has been made as simple as possible, one officer only, a chairman, being elected to serve for the year. Mr. P. Ling served in this capacity for 1916; Mr. W. T. Tao is the present executive. Meetings are held two Thursdays in the month, at 8.00 p.m., in Teachers College. There are now twenty-four members, of whom seventeen are native Chinese students, and seven missionaries.

BRITISH EMPIRE CLUB

One of the best among the many good programs of the present year was that of the last meeting of the British Empire Club, held Thursday, February 15, when Will Irwin, the war correspondent, talked intimately of his experiences "Along the Allied Battle Front."

Mr. Irwin contrasted the present splendid condition and equipment of the Allied armies, particularly the British, with earlier conditions. He paid a most emphatic tribute to the French people and the poilus. The Canadians, he said, had completely won the admiration of the English who, at the beginning of the war, were inclined to look askance and to murmur, "Shocking!" as they observed the neighborly and democratic relations that existed between Canadian rancher privates and officers. Nowadays, when the memories of the Bloody Sector of the Marne are terrible yet holy, the name Canadian is open sesame to English hearts. For the men of the Old Dominion showed the soldier of the Mother Country that the hardy life of the Northwest had made them quick to grasp a situation and to act unflinchingly even to death.

Mr. Irwin's personal anecdotes of men and deeds ranged from tragedies that he himself had seen or heard from the lips of soldiers to stories of the gay camaraderie and optimism that go the rounds of camp-fires. He impressed upon his audience his firm conviction that the Allied cause was just and must inevitably win—that England was at last roused to splendid activity and splendid achievement.

ALUMNI ACTIVITIES

MISSOURI ALUMNI TO FORM TEACHERS COLLEGE CLUB

In connection with the meeting of the department of superintendence of the National Education Association to be held at Kansas City from February 26 to March 3 there will be formed a Missouri Teachers College club. The organization will take place at 5 p.m. on February 27 at the Hotel Baltimore, Kansas City, preceding the Teachers College dinner which is to be held at the same place at 6.30 p.m. Mr. George Melcher, director of educational research, Department of Public Instruction, Kansas City, has been selected as temporary chairman. There are over two hundred and fifty Teachers College alumni in Missouri as a basis for forming one of the most active clubs of the Alumni Association.

NEW PITTSBURGH TEACHERS COLLEGE CLUB

The alumni of Teachers College in Pittsburgh and vicinity organized a Teachers College club on January 27, electing the following officers: President, Miss Harriet Carter; vice-president, Mr. John Hollinger; secretary-treasurer, Miss Jane Mathews. A publicity committee was also chosen to promote the interests of this club. The members of this committee are as follows: Dr. T. J. Kirby, Miss Meredith Smith, and Miss Anna Petty. It was decided to have a grand rally of all former students of Teachers College on March 3 at which time Dean and Mrs. Russell will be present at a dinner to be given by the club at the Hotel Pitt.

It is of interest to note that the Teachers College Club of Pittsburgh is a second phase of perhaps one of the earliest Teachers College clubs ever organized. About nine years ago

a club of Teachers College alumnae was organized under the name of Columbia Alumnae Association. This early club, while limited in its membership, did pioneer work for Teachers College in Pittsburgh and furnished a common meeting ground for the many university trained women who came to Pittsburgh from Columbia University. The new Pittsburgh club is organized in accordance with the provisions of the new constitution of the Alumni Association and includes both men and women.

ALUMNI OF SOUTHERN OHIO ORGANIZE

The Teachers College alumni living in Oxford, Ohio, and vicinity met January 12 and organized a Teachers College club in accordance with the provisions of the Alumni Association. Mr. G. E. Carrothers was elected president, and Miss Clara M. Feeney secretary-treasurer. The club has petitioned the alumni council for a charter which will be granted at the next meeting of the council.

MISS TRUMPER: STATE SUPERINTENDENT OF EDUCATION FOR MONTANA

Miss May Trumper, who has just received the degree of Bachelor of Science from Columbia University, was elected in November, on the Republican ticket, to the office of state superintendent of education in Montana. Her work began January 1, for a four-year term.

Miss Trumper was born in Fayette County, Ohio. After graduating from the London, Ohio, high school, she attended the Granville Female College. Her later study includes work at Harvard University and the University of California. She was a student at Teachers College during 1915-16, the summer session of 1916, and part of the winter session of 1916-17. Her earlier teaching experience was gained in Ohio. From 1899 to 1907 she was high school teacher in Kalispell, Montana, and was county superintendent of schools for Flathead County, Montana, from 1907 to 1915.

As state superintendent of education, one of Miss Trumper's special aims will be to disassociate such an office from politics.

MISS WHEELER'S NEW APPOINTMENT

Miss Clara M. Wheeler, teacher in the first grade of the Horace Mann School for the past ten years, has left to take charge of a private school at Spuyten Duyvil, New York. Her new work covers the first six years of the elementary school. Miss Wheeler expects to find means here to work out her theory in regard to the one-room school of several grades and the rural school problem.

Miss Wheeler received the degree of Bachelor of Science from Teachers College in 1914. She is a graduate of the Training High School, Concord, Mass., and the Normal School at Bridgewater, Mass. Before becoming a member of the teaching staff of the Horace Mann School Miss Wheeler had had considerable experience in teaching in the lower grades of the elementary school. She was training teacher of grades one to four for three years at the Rhode Island State Normal School, and principal of the primary department and critic teacher of grades one to four at the State Normal School of Hyannis, Mass., for three years.

APPOINTMENTS

Miss Sherred Adams, for the past two years principal of the Brush Hill School at Milton, Mass., has become assistant principal of the Oak Lane Country Day School, Philadelphia, Pa.

Mr. John W. Charles has been appointed assistant professor of education at Iowa State Teachers College, Cedar Falls, Ia.

Mr. Philip Cox, formerly superintendent of schools at Solvay, N. Y., has become professor of education at the Harris Teachers College, St. Louis, Mo.

Mr. M. W. Deputy, formerly director of the training school in the State Normal at Mankato, Minn., has accepted a similar position in the public schools of Kansas City, Mo.

Miss Leila Cobb, formerly director of training at the State Normal School, Edinboro, Pa., has been selected by Mr. Meek to be primary supervisor of the public schools at San Antonio, Texas. Her work at Edinboro is being carried by Miss Ada E. Jones, a former Teachers College student.

In New England and New York State several high school principalships have been taken by Teachers College men:

notably, John S. Hosterman, who goes to Danbury, Conn.; B. P. Fowler, Milton, Mass.; Ambrose J. Fry, Dunkirk, N. Y. In junior high school work, A. J. Remy has succeeded John L. Riley in the principalship of the junior high school at Springfield, Mass. Supervising principalships in New York State are as follows: Frank Dubois, at Silver Creek; E. D. Hewes, at Cobleskill.

Mr. Lester Ivins has been appointed to teach education in extension work at the State Normal School, Kent, Ohio; Mr. William L. Spencer has undertaken similar work at the State Normal School, Bowling Green.

Two unusual appointments in institutions in New York are those of Mr. Manly H. Harper as superintendent of education at Hope Farm, Verbank, N. Y., and Mr. Forrest Lunt, formerly teacher of English in Horace Mann High School for Boys, as head-keeper at the Westchester County almshouse. In each case the aim is to relate school work to the farm activities and industries.

Mr. Raymond Kent, formerly principal of the University High School at the University of Minnesota, and recently appointed superintendent of schools at Lawrence, Kansas, will also act as superintendent of the training school at the University of Kansas.

Mr. Samuel North, formerly head of the English department in a high school at Baltimore, has been made high school inspector in the state of Maryland.

Miss Greta Grey has been appointed instructor in domestic science in the State Normal School at Pittsburg, Kans.

Miss Jean Stewart will be instructor in domestic science at the Kansas State Agricultural College, Manhattan, Kans.

Mr. William K. Sherinyan has been appointed instructor in industrial arts for the junior high school grades of the Schwab Industrial School, Pittsburgh, Pa.

Miss Elsie Trabue will carry on extension work in domestic science at the Massachusetts Agricultural College.

Mr. John Burns has been appointed supervisor of industrial arts in Chattanooga, Tenn.

Miss Candace Cummins will be instructor in foods and textiles at the University of Texas, Austin, Texas.

Miss Katherine Braithwaite has been appointed instructor in domestic science in extension work at Catonsville, Md.

Miss Jane A. Cochran will be instructor in English in Milwaukee Downer Academy, Milwaukee, Wis.

Miss Ruetta Day has been appointed instructor in household science and supervisor of practice teaching at the State Teachers College, Greeley, Colo.

Miss Mabel L. Robinson, who secured her Doctor's degree last June, is doing research work for the Carnegie Foundation in the analysis and interpretation of college data. This is really a survey of college students from a vocational angle.

ANNUAL ELECTION OF OFFICERS

The annual election of officers of the Alumni Association will take place on Saturday, February 24, in connection with the Alumni Reunion and Conferences, held at the College at that time. The officers to be elected this year for a period of two years are president, treasurer, and corresponding secretary. The other officers were elected last year for a two-year period.

There is also to be appointed this year an alumni trustee to succeed Miss Lida Lee Tall, whose term expires March 1. Nominations for the above officers and for alumni trustee were made by the alumni on blank forms sent out early in January. The returns were canvassed, resulting in the following nominations: For president, Dr. Ernest N. Henderson, Mr. William E. Stark, and Mr. Winton J. White; for treasurer, Dr. Marion Rex Trabue; for corresponding secretary, Miss Stella S. Center and Miss Louie May Miner; for alumni trustee, Miss Valentine L. Chandor and Miss Bessie L. Gambrill.

The above list of names on blank ballots has been mailed to each member of the Alumni Association in order that votes may be cast. The ballots are due by February 10, when they will be canvassed by the executive committee who will lay the results before the alumni council at its next meeting on February 24.

ANNUAL ALUMNI CONFERENCES

The Annual Reunion and Conferences of the Alumni Association of Teachers College will be held at the College on Friday afternoon and evening, February 23, and on Saturday, February 24. A program of special interest has been prepared for this reunion. The new feature instituted last year of a general meeting on Friday afternoon, at which two members of the faculty present a summary of recent educational progress, will be continued. This meeting will be followed by a reception by Dean and Mrs. Russell. A detailed program of the entire meeting follows:

FIRST GENERAL MEETING

FRIDAY, FEBRUARY 23, 3:30–4:30 P. M.

Chairman: DR. EDWIN C. BROOME, President of the Alumni Association, and Superintendent of Schools, East Orange, N. J.

Addresses:

Some of Our Educational Problems—DR. PAUL MONROE, Director of the School of Education, Teachers College.

Household Arts To-day and To-morrow—MISS ANNA M. COOLEY, Assistant Professor of Household Arts, Teachers College.

RECEPTION

The above meeting will be followed by a reception to the Alumni and their friends by DEAN and MRS. RUSSELL.

SECOND GENERAL MEETING

FRIDAY, FEBRUARY 23, 8:00 P. M.

Address: The Place of Materials in the Intellectual Development of the Race and the Child—DR. WILLIAM H. KILPATRICK, Associate Professor of Education, Teachers College.

THIRD GENERAL MEETING

SATURDAY, FEBRUARY 24, 3:30–5:00 P. M.

Chairman: DR. EDWIN C. BROOME, President of the Alumni Association.

Addresses:

Alumni Trustee's Report—DR. LOTUS D. COFFMAN, Alumni Trustee, and Dean of the School of Education, University of Minnesota.

Development of Educational Science in America and Its Significance for Great Britain—AGNES L. ROGERS, Assistant in Psychology, and Lecturer in Logic and Ethics, Training Centre for Teachers, Aberdeen, Scotland.

Address and Announcements—DEAN JAMES E. RUSSELL.

TEACHERS COLLEGE FESTIVAL

SATURDAY, FEBRUARY 24, 8:00 P. M.

There will be a special Alumni performance of the annual Teachers College festival. The title of this year's festival is "The Spirit of America." (See page 97.)

PROGRAM OF SECTION MEETINGS

ADMINISTRATION AND COLLEGE TEACHERS OF EDUCATION

FRIDAY EVENING, FEBRUARY 23

There will be a dinner at 6:30 p. m. for men engaged in educational administration and college teaching at the West End Restaurant. The dinner will be followed by a discussion of the subject, Recent Contributions of Psychology to Educational Practice.

Chairman: DR. JOSEPH K. VAN DENBURG, Principal, Public School No. 40, New York City.

Speakers: DEAN RUSSELL, DR. E. L. THORNDIKE, and DR. STEPHEN S. COLVIN.

SATURDAY, FEBRUARY 24, 9:30 A. M.

Chairman: MR. Z. E. SCOTT, Asst. Commissioner of Education, New Jersey.

Subject: The Gary Plan: An Experience Meeting.

Speakers: MR. R. F. MYERS, Principal, Work-Study-Play School, Passaic, N. J.; MR. EDGAR S. PITKIN, Principal, Cleveland School, Newark, N. J.; MR. HOWARD D. NUDD, Director, Public Education Association, New York City; MR. ANGELO PATRI, Principal, Public School No. 45, New York City.

Discussion opened by DR. FRED S. SHEPHERD, Superintendent of Schools, Passaic, N. J.

SECONDARY EDUCATION

SATURDAY, FEBRUARY 24, 9:30 A. M.

General Topic: The Relation of the Senior High School to the Junior High School with Special Reference to the Curriculum.

Speakers:

The Service that a Junior High School Hopes to Render to the Senior High School—MR. CHARLES E. SPRINGMEYER, Principal of Public School No. 86, Brooklyn, N. Y.

What the Senior High School Might Justly Expect from the Graduates of a Junior High School—MR. C. D. KOCH, State Inspector of Schools, Harrisburg, Pa.

What Reorganization of the Senior High School Must Come in the Future—MR. J. WALTER D. HEAD, Principal of the High School, New Rochelle, N. Y.

The discussion will be opened by MR. LINDSEY BEST, Principal of the High School, Plainfield, N. J.

ROUND TABLE CONFERENCES IN SECONDARY EDUCATION

SATURDAY, FEBRUARY 24, 2:00 P. M.

ENGLISH: The ROUND TABLE CONFERENCE will be devoted to a discussion of Postcards and Other Illustrative Material for English Classes. The Chairman is MR. FREDERICK H. LAW.

HISTORY: PROFESSOR JOHNSON will be at home to former students after the luncheon.

LATIN: PROFESSOR LODGE will be at home to former students after the luncheon.

MATHEMATICS: The program of the ROUND TABLE is as follows:

The Relation of the Senior High School Course in Mathematics to that of the Junior High School—PROFESSOR CLIFFORD B. UPTON.

The Results of the Investigations of the Disciplinary Value of Mathematics —MISS VEVIA BLAIR, Head of the Mathematics Department, Dr. Leete's School, New York City.

The Astrolabe, a Historical Sketch—MISS MARCIA G. LATHAM, Department of Mathematics, Hunter College, New York.

PHYSICAL SCIENCE: The ROUND TABLE CONFERENCE will discuss Methods of Teaching Physical Sciences. Chairman: MR. ROLAND C. WILLIAMS, of the Horace Mann School for Boys.

ELEMENTARY EDUCATION

SATURDAY, FEBRUARY 24, 9:30 A. M.

Chairman: DR. JOHN D. HANEY, Principal of Edgar Allan Poe School, New York City.

General Subject: Quantitative and Qualitative Bases in Judging Instruction.

Speakers: DR. FRANK M. MCMURRY, Professor of Elementary Education, Teachers College, and DR. ARTHUR J. JONES, Assistant Professor of Education, University of Pennsylvania.

Discussion will be led by MISS MARGARET E. NOONAN, Instructor in Education, Harris Teachers College, St. Louis, Mo., and DR. JAMES F. HOSIC, Head of the Department of English, Chicago Normal School.

Summary of discussion by DR. FREDERICK G. BONSER, Professor of Education, Teachers College.

KINDERGARTEN EDUCATION

FRIDAY, FEBRUARY 23, 8:00 P. M.

Address: The Place of Materials in the Intellectual Development of the Race and the Child—DR. WILLIAM HEARD KILPATRICK, Associate Professor of Education, Teachers College.

SATURDAY, FEBRUARY 24, 10:00 A. M.

Discussion: Recent Studies and Experiments in Childhood Education.

Speakers: MISS MEREDITH SMITH, Department of Education, University of Pittsburgh; MISS FAYE HENLEY, Principal of the Elementary School, Boston; MISS BERTHA M. BARWIS, Kindergarten Supervisor, Public Schools, Trenton, N. J.; MISS CHARLOTTE G. GARRISON, Director, Horace Mann Kindergarten, Teachers College.

FINE AND INDUSTRIAL ARTS

SATURDAY, FEBRUARY 24, 9:30 A. M.

Chairman: MR. CHARLES J. MARTIN, Teachers College.

Speakers:

A Change in Conception in Industrial Arts—DR. FREDERICK G. BONSER, Professor of Education, Teachers College.

The Work of the Year—MR. ARTHUR W. DOW, Professor of Fine Arts, Teachers College.

What Teachers College Is Doing in Junior High School Industrial Arts—MR. ALANSON H. EDGERTON, Teachers College.

Art in Pageantry—MISS BELLE NORTHROP.

Report of Fine and Industrial Arts Alumni Scholarship Committee—MISS SALLIE B. TANNAHILL, Instructor in Fine Arts, Teachers College.

The Development of the Work-Study-Play Plan with Reference to Vocational Education—MR. JOSEPH H. CONSTANTINE, Director of Industrial Arts in the Schools of Passaic, N. J.

Some Paper Cutting Problems in the Elementary Schools—MISS BELLE BOAS, Horace Mann School.

Cement as an Industrial Art Study. MR. HERMAN HJORTH, Teachers College.

HOUSEHOLD ARTS

SATURDAY, FEBRUARY 24, 9:30 A. M.

Chairman: MRS. MARY S. ROSE, Assistant Professor of Household Arts, Teachers College.

General Topic: The Relation of the Woman Trained in Household Arts to the Social Life of the Present.

Speakers:

Introduction—The Responsibilities of the Practical Arts Alumni—DEAN RUSSELL.

The Modern Outlook on the Home—MISS MAY B. VAN ARSDALE, Assistant Professor of Household Arts, Teachers College.

The Social Basis of the New Education—DR. FREDERICK H. SYKES, President of the Connecticut College for Women.

NURSING AND HEALTH AND HOUSEHOLD ADMINISTRATION

FRIDAY, FEBRUARY 23, 8:00 P. M.

Speakers:

Some Problems of Administration in Social Institutions—DR. KATHERINE BEMENT DAVIS, Chairman, Board of Parole, New York City.

Standards of Administration in Children's Institutions—DR. R. R. REEDER, Superintendent, The Orphanage, Hastings-on-Hudson, N. Y.

SATURDAY, FEBRUARY 24, 9:30 A. M.

Chairman: MISS S. LILLIAN CLAYTON, President of the Nursing and Health Branch of the Alumni Association.

Business Meeting: Reports on the results of coöperative housekeeping and on opportunities for part-time work for students while at Teachers College will be given; and the feasibility of coöperation by the alumnae will be discussed.

Speakers:

Address of Welcome—MISS ADELAIDE NUTTING, Professor of Nursing and Health, Teachers College.

Health Insurance in Relation to Nursing—MISS FLORENCE KELLY, General Secretary of the National Consumers' League.

New Social and Nursing Problems Resulting from the Recent Epidemic of Acute Poliomyelitis—DR. HAVEN EMERSON, Commissioner of Health, New York City.

Recent Tendencies in Secondary Education with Possible Adjustments of the Course of Study for Prospective Nursing Students—MR. HENRY C. PEARSON, Principal of Horace Mann School.

Report of a recent study on the Relation of the Registry to the Training of Nurses—MISS MABEL HUNTLY, Student in the Department of Nursing and Health.

PHYSICAL EDUCATION

SATURDAY, FEBRUARY 24, 9:30 A. M.

Speakers:

Types of Club Organizations for Rural Schools and Communities—MR. CHARLES A. GAMMONS, County Secretary, Westchester County, New York.

Creative Activities of Urban Community Centers—MRS. J. GILMORE BRAYTON, Executive Secretary of New York Training School for Community Workers.

Demonstration: Club Activities of Boys and Girls. Leader: MR. GUCKER. There will be an exhibition of club material on Friday and Saturday.

MUSIC

SATURDAY, FEBRUARY 24, 9:30 A. M.

Speakers: MR. LOUIS LAMBERT; MISS THERESA E. WILD; MR. W. B. KENT.

LUNCHEONS

Luncheons will be served by each section, except the administration section, on Saturday, the 24th. The luncheons are in charge of committees appointed by each section.